6.0 MITIGATION MONITORING COMPLIANCE REPORTING PLAN

As the lead agency under the CEQA, the CSLC is required to adopt a program for reporting or monitoring regarding the implementation of mitigation measures for this Project, if it is approved, to ensure that the adopted mitigation measures are implemented as defined in this EIR/EA. This lead agency responsibility originates in PRC Section 21081.6(a) (Findings), and CEQA Guidelines Sections 15091(d) (Findings) and 15097 (Mitigation Monitoring or Reporting). As the lead agency under the NEPA, the BLM is responsible for ensuring that the mitigation measures for this Project, if approved, are implemented as defined in the EIR/EA.

6.1 MONITORING AUTHORITY

The purpose of a Mitigation Monitoring, Compliance, and Reporting Program (MMCRP) is to ensure that measures adopted to mitigate or avoid significant impacts are implemented. A MMCRP can be a working guide to facilitate not only the implementation of mitigation measures by the Project proponent, but also the monitoring, compliance and reporting activities of the CSLC, BLM, and any monitors they may designate.

The CSLC and BLM may delegate duties and responsibilities for monitoring to other environmental monitors or consultants as deemed necessary, and some monitoring responsibilities may be assumed by responsible agencies, such as affected jurisdictions and cities, and the California Department of Fish and Game (CDFG). The number of construction monitors assigned to the Project would depend on the number of concurrent construction activities and their locations. The CSLC, BLM or their designee(s), however, would ensure that each person delegated any duties or responsibilities is qualified to monitor compliance.

Any mitigation measure study or plan that requires the approval of the CSLC and BLM must allow at least 60 days for adequate review time. When a mitigation measure requires that a mitigation program be developed during the design phase of the Project, the Applicant must submit the final program to the CSLC and BLM for review and approval for at least 60 days before construction begins. The BLM Plan of Development, which would contain the Mitigation Monitoring Plan, would be approved prior to the issuance of a notice to proceed. Other agencies and jurisdictions may require additional review time. It is the responsibility of the environmental monitor

assigned to each spread to ensure that appropriate agency reviews and approvals are obtained.

The CSLC, BLM or their designee would also ensure that any deviation from the procedures identified under the monitoring program is approved by the CSLC and BLM. Any deviation and its correction would be reported immediately to the CSLC or its designee by the environmental monitor is assigned to the construction spread.

The MMCRP establishes a series of protocols to avoid adverse environmental impacts by a process of planning and onsite analysis. This would be accomplished through identification of the schedule and location of proposed construction activities, anticipation of conflicts between construction activities and environmental resource areas, and implementation of corrective actions before conflicts occur. The procedures described in the MMCRP would:

- provide a list of sensitive species including biological resource areas,
- provide an immediate response to emergencies,
- establish a chain of command with efficient lines of communication for timely resolution to issues arising in the field,
- establish a protocol to anticipate and respond to Project variance requests, and
- document compliance with the entire mitigation package.

Documentation of mitigation compliance would be conducted daily via a web site hosted by the CSLC or their designee, using a standardized data sheet. The daily reports would document mitigation compliance and work progress. Monthly reports would also be completed to document actual Project impacts that occurred during the month, the effectiveness of mitigation measures violations, and monthly construction progress. Close coordination between agency monitors, environmental inspectors, and construction management would be required to effectively comply with the adopted mitigation measures.

6.2 ENFORCEMENT RESPONSIBILITY

The CSLC and BLM are responsible for enforcing the procedures adopted for monitoring through the environmental monitor is assigned to each construction spread. Any assigned environmental monitor would note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the CSLC, BLM or their designee.

The CSLC and BLM would rely upon the following monitors for ensuring compliance with this EIR/EA.

CSLC/BLM Lead Field Monitor. The CSLC/BLM lead field monitor (LFM) would be the primary contact for EPNG's monitors. The LFM would oversee the monitors, monitoring program, and reporting program on a daily basis. The LFM would also meet on a weekly basis with EPNG's lead monitor to plan upcoming personnel and monitoring requirements, by evaluating the level of construction activity and proximity and number of sensitive resources. The LFM would also communicate with the CSLC/BLM project managers on a daily basis to ensure that the CSLC/BLM has the most current information regarding field activities. The primary responsibilities of the LFM include:

- patrolling all construction spreads at least once per week;
- meeting with spread monitors at least once per week and communicating by phone with monitors at least twice daily;
- meeting with the EPNG monitor at least twice per week and communicating by phone at least once daily;
- meeting with the CSLC/BLM project manager at least once per week and communicating by phone at least twice daily;
- entering and reviewing daily reports, and reviewing weekly and monthly reports;
- keeping the MMCRP field variance forms, and route books up to date; and
- reviewing construction plans daily and arranging for strategically placed resource specialists in required locations.

CSLC/BLM Field Monitors. The field monitors would conduct daily oversight of their assigned spread. Oversight of the spread includes meeting with EPNG's monitors, patrolling the entire spread each day, and inspecting each construction site to ensure compliance with the MMCRP. Field monitors would also be responsible for visually inspecting the sensitive areas that would undergo construction in the near future. The monitors would compare the visual inspection of the area to the MMCRP, any applicable permits, and the Biological Opinion. The field monitors would complete an inspection report for each construction site visited each day. As part of ongoing communication, the field monitors would also talk to the LFM twice daily to provide construction and compliance updates. Specific responsibilities of the field monitors include:

- patrolling the entire spread each day;
- meeting with EPNG's monitors each day and working continuously on building working rapport and trust;
- spending as much time as needed at each construction site (time required could be as short as 5 minutes for a small, reduced-activity, routine site to over 1 hour at a large, high-activity, complex site;
- witnessing construction practices at each site to ensure that the MMCRP is being followed (e.g., silt fences, signs, all activity within the ROW);
- meeting with EPNG's monitors and resource specialists as needed for field variances;
- visually inspecting critical areas where construction is planned in the near future (within 1 to 2 weeks); comparing the visual inspection to the MMCRP, Biological Opinion, and permits; and ensuring that adequate and proper fencing, signage, and similar requirements are installed;
- completing inspections at each construction site and submitting for review daily; and
- communicating by phone or in person with the lead field monitor at least twice daily.

The CSLC/BLM agency Project manager, the FERC, and other appropriate permitting agencies would be consulted if conditions outside the scope of the approval arise. The agencies and their respective approvals are listed in Table 6.2-1. Permit revocation is the ultimate enforcement mechanism. To evaluate compliance, resource agencies review reports and records generated by third-party Environmental Monitors (EM), and by EPNG and its contractors; and field monitors directly observe the Project.

Table 6.2-1. Agencies and Respective Approvals

Agency	Activity Requiring Approval	Form of Approval
Federal Agencies		
Federal Energy Regulatory Commission (FERC)	Construction and operation of interstate natural gas transmission pipeline facilities	Certificate of Public Convenience and Necessity
US Fish and Wildlife Service USFWS)	Construction of natural gas pipeline facilities	Clearance under Section 7 of the Endangered Species Act
Bureau of Land Management (BLM)	Transfer of ROW easements from All American to EPNG; additional approval for Powerline ROW	ROW Grant(s)
Department of the Army, Corps of Engineers (USACE)	Construction of pipeline across waters of the U.S., including wetlands	Section 404 Permit (Nationwide 3 & 12 expected)
US Environmental Agency Protection(USEPA) - Region 9	Construction of pipeline in Arizona and California	General Construction (Storm Water) Permit
State Agencies		
California		
California State Historic Preservation (SHPO)	Construction of natural gas pipeline	Clearance under Section 106 of the National Historic Preservation Act
California State Lands Commission (CSLC)	Construction on State Sovereign and School lands	Certify Project and issue lease
Central Valley Regional Water Quality Control Board, Lahontan Regional Water Quality Control Board, Colorado River Basin Regional Water Quality Control Board	Construction of pipeline across waters of the U.S., including wetlands Construction disturbance over 5 acres Discharge of hydrostatic test water	Section 401 Certification (NPDES) stormwater for construction permit NPDES Discharge Permit
California Department of Fish and Game Department (CDFG)	Construction of pipeline across California Construction activity in dry washes	T & E Species Incidental Take Permit (2081) Streambed Alteration Agreement
California Department of Transportation	Construction of pipeline across State highways	Highway crossing permit
Public Utilities Commission	Construction of electrical distribution powerline in California	
Arizona		
Arizona State Historic Preservation (SHPO)	Construction of natural gas pipeline	Clearance under Section 106 of the National Historic Preservation Act
Arizona State Land Office	Construction of natural gas pipeline across State lands	Right-of-Way grant Plant Salvage Payment

Agency	Activity Requiring Approval	Form of Approval
Arizona Environment Department – Surface Water Bureau	Construction of pipeline across waters of the U.S., including wetlands	Section 401 certification
Arizona Department of Agriculture	Construction of pipeline across land in Arizona	Native plant survey Notice of Intent to Clear
Arizona Department of Transportation	Construction of pipeline across State highway	Highway crossing permit
County		
Kern County, CA	County road crossing	County road crossing permit
San Bernardino County, CA	County road crossing	County road crossing permit
Riverside County, CA	County road crossing	County road crossing permit
La Paz County, AZ	County road crossing	County road crossing permit

General Reporting Procedures. Site visits and specified monitoring procedures performed by other individuals would be reported to the environmental monitor assigned to the relevant construction spread. A monitoring record form would be submitted to the environmental monitor by the individual conducting the visit or procedure so that details of the visit can be recorded and progress tracked by the environmental monitor. A checklist would be developed and maintained by the environmental monitor to track all procedures required for each mitigation measure and to ensure that the timing specified for the procedures is adhered to. The environmental monitor would note any problems that may occur and take appropriate action to rectify the problems.

Public Access to Records. The public is allowed access to records and reports used to track the monitoring program. Monitoring records and reports would be made available for public inspection by the CSLC/BLM or its designee on request.

6.3 MITIGATION COMPLIANCE RESPONSIBILITY

The Applicant is responsible for successfully implementing all the mitigation measures in the MMCRP, and is responsible for assuring that these requirements are met by all of its construction contractors and field personnel. Some mitigation measures include detailed success criteria, while others include such requirements as obtaining permits or avoiding a specific impact entirely. Additional mitigation success thresholds would be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

EPNG has indicated that they would organize their environmental inspection effort as described in the following.

EPNG's Environmental Manager (EM). The EM has primary management responsibility for successful implementation of EPNG's Environmental Compliance Management Plan (ECMP), the MMCRP and all environmental conditions of the Project. The EM reports directly to the EPNG project manager (PM) and is responsible for environmental planning, permitting, and compliance activities. Additional responsibilities include, but are not limited to:

- coordinating regularly with the Project's lead agencies to address regulatory issues and concerns;
- communicating frequently with the environmental coordinator (EC), environmental compliance supervisor (ECS), and EPNG management staff regarding environmental inspection and compliance activities;
- developing and refining Project environmental procedures;
- coordinating with the PM to obtain information necessary to resolve environmental issues and acquire new permits or permit revisions;
- providing guidance on the interpretation of environmental compliance requirements;
- conducting periodic quality assurance field reviews;
- ensuring that agency notifications are made in cases of emergencies or serious non-compliance situations with the environmental requirements of the Project.
- ensuring all regulatory clearances are obtained prior to construction;
- maintaining and distributing all regulatory/permitting documentation to the appropriate Project staff;
- coordinating resource specialty monitors (biological, cultural), as required;

- compiling and submitting summary status reports (with input from the Environmental Compliance Supervisor), as required to meet regulatory reporting requirements.

- acting as a key coordinator to resolve compliance issues;

- obtain necessary variances, complete notifications, coordinate resource surveys, and undertake other inter-project environmental issues during construction;

Environmental Inspectors (EI). EIs would be third-party environmental specialists hired by EPNG, with the objective of ensuring that the construction crews comply with all aspects of the MMCRP. EIs would evaluate, document, and verify that pipeline construction activities comply with all applicable mitigation requirements contained in the FERC Certificate, and Federal, State, and local permit requirements. EIs would share peer status with other Project construction inspection staff.

The inspection teams would be composed of professionals with the appropriate technical training and experience relevant to district resources and anticipated concerns. Each EI would maintain copies of all permits, resource information, agreements, line lists, and other Project specifications required for the Project in their vehicle.

EIs represent EPNG and would have the authority to enforce the environmental requirements of Project permits and plans. If a situation arises that could result in a violation of Federal, State, or local environmental permits or requirements—or cause undue harm to environmental resources, the EI would have the authority and obligation to directly halt or re-direct the activities to ensure that the Project remains in compliance. Whenever possible, however, the EI would make every effort to notify and coordinate with the EM prior to halting contractor activities.

EIs would also play a large role in reviewing Project changes. They would assist the EM in field verification of variance requests. Other responsibilities of the EIs include, but are not limited to:

- verifying that the limits of authorized work areas and locations of access roads are properly marked;

- ensuring that environmental permit conditions have been met prior to work in individual locations;

- acting as a liaison between construction personnel and agency field representatives;

- informing CIs and contractor personnel of the status of environmental issues in their respective areas;

- documenting contractor compliance with Project mitigation requirements, permit conditions, and environmental specifications on a daily basis;

- working with the contractor and CIs to coordinate the approval of notifications; and

- conducting environmental training sessions.

Working under the direction of the EM, the EI would also assess work area conditions ahead of construction, being sure to note concerns, site-specific requirements, and potential variance situations prior to construction activities. In every instance possible, the EI would provide advance notice to the CIs and the contractor of conditions and situations that require specific awareness and planning.

Resource Specialist Qualifications. EPNG would hire third-party resource specialists to help prevent undue harm to environmental resources within and around the Project area. EPNG would submit to the CSLC/ BLM the qualifications of their resource specialists within 30 days of starting pre-construction surveys. Minimum qualifications for third-party resource specialists include:

- a bachelor's degree in biological sciences, anthropology, archeology, paleontology, or other closely related fields suitable to the specific mitigation or permit condition;

- 3 years of experience with resources found in or near the Project area;

- thorough familiarity with Federal and State environmental laws and regulations;

- biologists must have a thorough familiarity with the biology, current recovery strategies, and current handling techniques for species occurring in the Project area;

- experience in conducting biological or cultural surveys; and

- thorough familiarity with the conditions of the TES permits.

- **Construction Personnel.** A key feature contributing to the success of mitigation monitoring would be obtaining the full cooperation of construction personnel and supervisors. Many of the mitigation measures require action on the part of the construction supervisors or crews for successful implementation.

One or more preconstruction meetings would be held to inform all and train construction personnel about the requirements of the monitoring program.

A written summary of mitigation monitoring procedures would be provided to construction supervisors for all mitigation measures requiring their attention. EPNG would have the following construction positions, any of which may interact with the EM or EI:

- The Project Manager (PM) is the ultimate authority for Project environmental compliance and successful implementation of the ECMP.

The Project Engineer (PE) reports directly to the PM and provides the overall direction, management, leadership, and corporate coordination for construction and engineering of the Project.

- The Chief Construction Manager (CCM) reports directly to the PE and oversees the construction inspectors.

- The Construction Inspectors (Cis) on each spread are expected to work closely with EIs to ensure compliance with all construction and environmental requirements. EPNG is committed to training the CIs to identify key environmental requirements associated with every construction operation.

The Project Engineer (PE) reports directly to the PM and provides the overall direction, management, leadership, and corporate coordination for construction and engineering of the Project.

ROW personnel would report directly to the PM to implement land acquisition and landowner communication programs. ROW agents would coordinate frequently with construction and environmental staff on each construction spread, and would be available to resolve landowner issues and concerns throughout Project construction.

6.4 GENERAL MONITORING PROCEDURES

EPNG's environmental and construction teams would be in the field inspecting for compliance with environmental requirements throughout the construction phase of the Project. Compliance levels would be assigned during every inspection and would be documented by EPNG's environmental inspection staff on a daily basis. CSLC/BLM environmental monitors would conduct daily field inspections that would be documented and placed on the MMCRP website.

This section of the MMCRP describes the environmental inspection field team's responsibility and approach to assessing environmental compliance during construction. The program emphasizes the need for ongoing communication between EPNG's environmental compliance team, the engineering contractor, and the environmental monitors to encourage the best possible implementation of mitigation measures and the protection of environmental resources. Overall, the goal is to resolve compliance issues as soon as possible and at the lowest appropriate level.

During construction, EPNG's Eis would work to ensure compliance with all environmental requirements and permit specifications. To achieve this goal, the environmental inspection staffwould:

- take a proactive and practical approach to inspection,
- maintain effective communications and working relationships with the CIs and contractor staff,
- communicate regularly with agency representatives,

- cooperate in the resolution of environmental issues that arise during construction,
- provide effective follow-up to non-compliance issues, and
- implement appropriate measures to prevent additional non-compliance situations from occurring.

6.4.1 Compliance Levels

Compliance documentation and reporting would be an integral tool in implementing the ECMP. The reporting system allows the Project to monitor the compliance of its contractors, to detect compliance trends and issues early on, and to prevent problems from developing into more significant violations of permit conditions. Designations for levels of compliance are an internal management tool and, importantly, not all of the non-compliance reports issued by CSLC/ BLM field monitors would represent a violation of Project permits or agreements.

The MMCRP uses a tiered approach to document environmental compliance. Six levels of compliance have been identified and would be assigned to construction inspection events, including:

- acceptable
- minor problem
- violation
- repeated violation
- serious violation
- emergency

The CSLC/BLM environmental monitors would consider the following three primary factors in determining compliance levels:

- the level of resource damage,

- the intent behind the action, and
- the history of occurrence.

These factors would be considered in concert to provide guidance in determining compliance. For example, if an unintentional activity was found to have little or no resource damage and was addressed immediately, the activity would be documented as a minor problem. If there was significant repetition of the activity, with an increasing potential for resource damage, the activity may be documented as a non-compliance situation. If any one of the three determining factors is considered significant, this alone can constitute a non-compliance or serious non-compliance event, regardless of the severity of the other two factors.

The six compliance levels and guidelines for assigning them are described below.

ACCEPTABLE

Activities that are in compliance with the Project's environmental requirements are documented as acceptable inspection events.

MINOR PROBLEM

A minor problem is any deviation from the environmental requirements, with little or no impact on sensitive environmental resources. In addition, a minor problem may be issued if repeated incidents that, as a group, are not mitigated or addressed in the proper timeframe and show an undesirable compliance trend. Some examples of a minor problem are:

- failure to remove trash from the ROW,
- a small leak or spill that is cleaned up immediately, and
- improperly installed erosion control devices.

Project personnel should address minor problems immediately, if possible. Although minor problems tend to have little or no resource impact, immediate action to correct the problem would minimize the possibility that the problem would escalate. If the

contractor does not address a minor problem immediately, or conditions worsen due to a lack of response, the minor problem would be elevated to a non-compliance situation.

VIOLATION

Non-compliance activities violate the Project's environmental requirements and place environmental resources at risk. In addition, a non-compliance situation may occur when minor problems are repeated and show a trend toward placing resources at unnecessary risk. Some examples of a non-compliance event include:

- slash, soil, or construction material or equipment outside the ROW in an environmentally sensitive area;
- travel outside designated ROWs or approved access roads;
- disturbance of an unapproved access road by Project-related personnel;
- refueling closer than 100 feet from a waterbody or wetland; and
- dewatering the trench near a sensitive resource without appropriate sediment control devices in place.

In the event of a violation, EPNG's EI would take immediate action in the field to resolve the non-compliance activity. This could include requiring corrective actions by the contractor or temporarily halting the offending activity that has the potential to cause damage to sensitive environmental resources.

Non-compliance events would be documented in the daily environmental inspection reports. Appropriate corrective actions to resolve non-compliance events must be taken immediately; if the issue is not resolved immediately, the EI would set a date for resolution.

REPEATED VIOLATION

The repeated violation designation represents repeated non-compliance activities that occur following resolution measures drafted after the initial violation and that place resources at an unnecessary risk. These repeat violations typically occur when there is

a lack of understanding regarding the violation and a lack of communication between the violator and the EI.

In the event of a repeated violation a mandatory tailgate training session would be scheduled the following morning, which would be attended by crew involved in the non-compliance situation, the EI, and CSLC/BLM field monitor. If the non-compliance issue is not remedied, a serious violation would be issued.

SERIOUS VIOLATION

Serious non-compliance situations are considered to be actions that cause harm or pose immediate and serious threat to sensitive environmental resources. In addition, serious non-compliance events may be identified if there are repeated non-compliance events. Some examples of serious non-compliance events are:

- disturbance or placement of spoil or construction materials in a work exclusion zone;
- harm or harassment of a protected species;
- failure to clean up a spill located near a sensitive resource;
- non-resolution of a repeated violation;
- failure to temporarily stop work at the request of the EI; and
- willful impact on cultural resources.

Immediate corrective actions would be implemented (including cessation of construction activities in the area, as appropriate) if a serious non-compliance situation is identified. For example, an excavation crew placing spoil in an exclusion area (threatened and endangered species area) that is clearly marked with fencing and flagging would constitute a serious non-compliance situation. Upon discovery of this activity, the EI would halt work (as described in the stop work process below) in this area, make the appropriate notifications, and issue a serious non-compliance report. Immediate notification to the CSLC/BLM environmental monitor is required.

Corrective actions would be discussed and acted upon immediately. Corrective actions could include immediate correction of the non-compliance (if possible), field training (tailgate training session), temporary work suspension or, if necessary, disciplinary measures or dismissal of the individuals involved in the non-compliance actions. In addition, the contractor and/or individuals may be held responsible for consequences due to environmental violations, including potential fines.

EMERGENCY

In addition to the above compliance levels, the Project has designated a category to document emergency situations, such as fires or accidents (e.g., a fuel truck accident or a significant hazardous material spill). Emergency events would be communicated immediately to the appropriate jurisdictional agency and/or landowner. An emergency event may or may not result in a non-compliance situation. For example, if a brush fire started adjacent to the ROW, this emergency would not necessarily be considered a non-compliance situation. If, the fire started due to the contractor's negligence, it would be reported as a serious non-compliance event.

6.4.2 EPNG Compliance Reporting and Notification

EPNG would establish an internal Environmental Compliance Reporting System to communicate compliance issues within throughout the entire compliance team.

Daily Environmental Compliance Reporting

Each EI would complete and submit (electronically) environmental inspection reports to the Project's Environmental Compliance Reporting System each day. The following day, the reports would be processed electronically and distributed (by e-mail, web-site, or fax) to Project staff, agency representatives, and other personnel, as appropriate. A number of other reports would be produced and distributed to field and management staff (e.g., a contractor punch list), as appropriate.

Grounds for Immediate Notification

To make proper agency notifications, the EI must notify the CSLC/BLM environmental monitor immediately if the situations listed below are identified:

- hazardous materials spill into a waterbody or wetland,

- adverse impact to an archaeological site,
- direct dewatering or discharge into a waterbody,
- noticeable sedimentation into a waterbody, or
- take of threatened or endangered species.

Pre-Construction Agency Notifications

The EM, with assistance from the EI, would be responsible for ensuring that all pre-construction agency notifications are made in the required timeframes. Once construction begins, the EI would be responsible for ensuring that all verbal agency notifications are made from the field regarding work in and around identified resources requiring prior notification. During construction, the EI would also be responsible for notifying the EM of the need for written notifications and providing the field information necessary to prepare these notifications.

6.4.3 CSLC/BLM Reporting

The CSLC/BLM would design a web site to establish an electronic record of monitoring activities and report compliance reports and issues on a daily basis. This site would be hosted by CSLC or their designee.

Daily Environmental Compliance Reporting

Each CSLC/BLM environmental monitor would complete and submit daily environmental monitoring reports via the agency web site. These reports would immediately be available for agency review.

Digital Photo Documentation

Digital photographs would be taken during construction to document compliance levels; establish an electronic record of construction practices; and better describe non-compliance, serious non-compliance, and emergency situations when they occur. Digital photos would be forwarded to Project and appropriate agency personnel as necessary to assist in resolving non-compliance, serious non-compliance, and emergency situations. Electronic copies of the photos would be archived by the Project

for general reference and to document non-compliance resolutions. The photos would be included in the daily environmental monitoring reports.

6.4.4 Project Change Requests and Variances

At various times throughout the construction phase of the Project, the need for extra work space, additional access roads, or a change in dig site locations or length may be identified. Similarly, changes to the Project requirements (e.g., mitigation measures or specifications) may be desirable to facilitate construction or to provide more effective protection of the resources associated with the Project.

All Project changes would require some level of regulatory approval by the CSLC/BLM monitoring team, the CSLC, the BLM, the FERC, or other agencies. As described below, changes may include minor adjustments to work areas within previously surveyed and "cleared" areas, as well as more significant changes that may involve additional resource surveys, landowner permissions, and regulatory approval. Procedures for each type of situation are outlined below.

Level 1 Minor Field Adjustments within the Pre-Construction Survey Area

The EI, with approval by the CSLC/BLM Lead Field Monitor, may approve certain field adjustments and/or modifications if specific conditions exist and can be documented. Agency approval would be conducted in the field when the CSLC/BLM Lead Field Monitor signs a minor field variance request form submitted by the EI. To obtain approval for a minor field adjustment, the change must:

- be located wholly within an area previously surveyed for cultural resources and addressed in a Cultural Resource Survey Report previously submitted to and reviewed by the appropriate SHPO, and that avoids potentially eligible cultural sites;

- be located wholly within an area evaluated and documented by a resource specialist as not containing sensitive biological resources, wetlands, or wooded riparian areas; and

- have received landowner approval for work outside EPNG's permanent 50-foot ROW.

The EI would be responsible for ensuring field surveys are complete and fully documented. All field adjustments would be fully documented (and photographed as appropriate) in the EI's daily report. The EIs would be directed to err on the side of caution, and refer interpretation of surveyed area and/or results to the EM for confirmation. A summary of minor field adjustments approved in the field would be included in the CSLC/BLM Lead Field Monitor's daily report and would include a Minor Variance Field Authorization Form.

Level 2 Minor Variances

Minor variances include Project changes in location, approach, or implementation that are minor but require regulatory approval. Examples include:

- Project use areas just outside the previously surveyed ROW that are similar in dimension, landscape, land use, and habitat type as the authorized ROW; and

- minor field adjustments that yield different survey results from the pre-project survey.

The initial variance review would be conducted in the field by construction and environmental personnel. If it is determined that an agency-approved variance is required, the following procedure would be used:

- The EI would initiate the variance request process by completing a hard copy of the EPNG Project Change/Variance Request Form. The EI would be required to provide supporting maps, drawings, and photographs to accompany the variance request.

- The variance request would then be submitted to the appropriate ROW personnel and CSLC/BLM Lead Field Monitor for review. Any significant landowner or environmental issues associated with the variance would be addressed, and any conditions or requirements would be clearly identified on the variance form. The EI would submit the variance request to the CSLC/BLM Agency Project Manager. Impacts outside FERC certificated/approved areas would also require FERC approval.

- If it is determined that the variance is warranted and obtainable, the EI would coordinate with the CSLC/BLM Lead Field Monitor to complete any required resource surveys. After the surveys are conducted and any additional resource information is obtained, the variance would be finalized and forwarded to the CSLC, the BLM, the FERC, and appropriate agencies.

Once all documents are reviewed, each agency may provide notification by electronic means or a fax, followed by written communication. Prior to starting work within the area described in the approved variance, EPNG would submit agency-requested approvals to the CSLC/BLM Agency Project Manager.

Level 3 Variances

Level 3 variances include Project changes in location, approach, or implementation that are outside the scope of the EIR/EA and require regulatory approval. Examples include:

- Project use of areas (including construction, storage, laydown, disposal, and access) not previously identified, evaluated, or surveyed in the EIR/EA; and

- a change in the application of mitigation previously agreed to and specified in the EIR/EA, Project authorizations, or permits.

The initial variance review would be conducted in the field by construction and environmental personnel. If it is determined that an agency-approved variance is required, the following procedure would be used:

The EI would initiate the variance request process by completing a hard copy of the EPNG Project Change/Variance Request Form. The EI would be required to provide supporting maps, drawings, and photographs to accompany the variance request.

The variance request would then be submitted to the appropriate ROW personnel and CSLC/BLM Lead Field Monitor for review. Significant landowner or environmental issues associated with the variance would be addressed, and any conditions or requirements would be clearly identified on the variance form. The EI would submit the variance request to the CSLC/BLM Agency Project Manager.

If it is determined that the variance is warranted and obtainable, the EI would coordinate with the CSLC/BLM Lead Monitor to complete any required resource surveys. After the surveys are conducted by the Applicant and any additional resource information is obtained, the variance would be finalized and forwarded to the CSLC, the BLM, the FERC, and appropriate agencies.

It is understood that agency approval time would vary, depending on the complexity of the variance request submitted. If the variance request is minor and does not affect sensitive resources or new landowners, approval may be possible within a few days. For more complex variances, approval may take longer, and could include supplemental review under CEQA and NEPA.

Once all documents are reviewed, each agency may provide notification by electronic means or a fax, followed by written communication as appropriate, to EPNG's EI, approving or denying the request, or requesting additional information. If the variance request is approved, the EI would notify the CSLC/BLM Agency Project Manager. The EI would inform the contractor of any specific mitigation measures associated with the approved variance.

6.4.5 Flagging Fencing and Signage

After the resource surveys are conducted and sensitive resource areas are identified, a team of resource specialists, environmental inspection personnel, and surveyors would properly flag and sign the construction ROW so that construction personnel would be able to identify resource areas to be protected or avoided during construction. Examples of the flagging and signage for the Project are included below.

Approved Access Roads

All Project-approved access roads would be delineated on construction alignment drawings. Green signs entitled "Approved Access Road" and bearing EPNG's logo would be installed at the entrance to the access road both from the edge of the ROW and off main arterial roads.

No Refueling Zones

Red "No Refueling Zone" signs with EPNG's logo would be installed 100 feet from each boundary of stream and wetland crossings. These signs would also be installed at

periodic locations within large wetlands (greater than 100 feet in length), and in areas where the ROW closely parallels streams and wetlands.

Wetland Boundaries

Blue signs entitled "Wetland Boundary" and bearing EPNG's logo would be installed at the edge of all wetlands crossed by the Project. At times, the wetland boundary would meander across the ROW. In this case, the signs would be posted where it would provide the most protection to the resource.

Stream Buffer Zones

Blue "Stream Buffer Zone" signs that bear EPNG's logo would be installed as required by the Project permits. In the case of streams meandering across the ROW, the buffer zone would be signed to provide the greatest protection to the resource.

Work Area Limits

Extra work spaces and edge of ROW limits would be clearly marked with a combination of lath and high-visibility flagging. In areas where lath and flagging are difficult to see due to excessive vegetation or hilly terrain, the frequency of flagging would be increased.

Exclusion Areas

Special areas within the ROW and/or extra work space limits that would be saved per agreements made with landowners would be flagged or fenced for protection with highly visible flagging for the duration of construction. Additional yellow signage with EPNG's logo, entitled "Sensitive Resource Area – Keep Out" would be installed, as necessary, to ensure protection of the resource.

Sensitive Wildlife Areas

Areas on or adjacent to the ROW designated as sensitive wildlife areas (e.g., buffer zones around streams and endangered species habitat) would be marked and fenced with highly visible flagging or fencing, as required. Yellow signs bearing EPNG's logo, entitled "Sensitive Resource Area – Keep Out" would be installed at conspicuous locations to ensure protection of the resource.

Cultural and Paleontological Resource Sites

Fencing or flagging may be installed around cultural resources, as required, to protect sites that are located within or adjacent to the ROW. Similar to biological resources, yellow signs bearing EPNG's logo, entitled "Sensitive Resource Area – Keep Out" would be installed at conspicuous locations to ensure protection of cultural and paleontological resources. The signs and fencing would not indicate what type of resource is being protected to ensure the anonymity of the resource and decrease the potential for disturbance to or collection of artifacts.

Other specialty signs would be installed, as appropriate, along the ROW. The EI would install these signs to identify any additional areas or resources in need of protection during construction (e.g., in topsoil salvage areas).

6.4.6 Orientation and Training

EPNG's inspection team would be thoroughly familiar with the Project area and requirements prior to the start of construction. Environmental personnel would be mobilized to the Project at least 2 weeks prior to the start of construction. During this period, the environmental staff would complete pre-training activities under the direction of the EM. The pre-training work assignments would focus on Project-specific resources, Project specifications, construction work area staking and routes, and ROW familiarization. In addition, the pre-training assignments would encourage team-building and field logistics preparation.

The environmental training program for the Project would be developed to target every level of the organization (management and workforce) and would be customized to fit the job responsibilities of the Project participants. All program materials would be developed based on Project-specific environmental requirements as described in Federal, State, and local permits and other environmental documents. EPNG environmental staff and consultants would conduct the environmental training with input from agency representatives and resource specialists, as appropriate.

Environmental Inspector Training

EPNG would conduct a formal classroom training program for the EPNG environmental inspection staff after the initial orientation activities have been completed. The EI training program would take approximately 8 hours to complete. The training program

would focus on providing in-depth instruction on Project-specific procedures, resource issues, and construction specifications—with an overall focus on establishing the consistent application of environmental policies and procedures across the Project. All EIs would be trained on how to conduct crew training so that consistent delivery of the training program is maintained. This training program would be coordinated and facilitated by a designated training team, with contributions provided by Project staff, agency representatives, and resource specialists, as appropriate. The program would introduce the following:

- the overall approach and implementation of the EPNG ECMP;
- key staff roles and responsibilities and expectations;
- key Project issues and environmental concerns; and
- Project procedures and protocols.

Management and Inspector Training

A series of management and inspector environmental training programs (or kickoffs) would be held as each phase of construction is initiated. EPNG's spread management staff and CIs would attend up to an 8-hour training session, while the contractor's supervisors and key foremen would be required to attend a minimum 4-hour program. The environmental inspection staff would play an active role in the training by providing area-specific information and participating in activities and discussions. Agency representatives would also be invited to attend and speak, as appropriate. Each program would address spread-specific resources, compliance issues, and regulatory requirements.

Crew Training

As the final element of the EPNG environmental training program, general crew training sessions would be held at the contractors' yards for all Project personnel involved with field activities on the Project. The first component of the program, a 30- to 45-minute environmental briefing, would be required for all crew personnel, survey staff, field monitors, and visitors to the Project. Tailored to the needs of this audience, the general crew training would highlight key environmental obligations on the Project. The general

crew training would be conducted daily, or as needed, by the environmental inspection staff. All personnel would be required to attend this training before they are allowed to begin work. All trained personnel would be required to sign an agreement that states they would comply with all environmental requirements on the Project.

Tailgate Training

Where appropriate, the EI would also deliver brief tailgate training sessions throughout construction to select crews prior to starting work in sensitive areas, or where specialized construction techniques are required (e.g., presence of endangered species habitat or cultural resources, or residential construction). This brief tailgate training would highlight site-specific applications of the protection measures and critical compliance activities described in the general personnel training. Agency monitors may request a tailgate meeting when compliance issues arise to resolve these issues immediately. Agency monitors may attend these requested tailgate meetings to help resolve any issues and answer questions.

Training Aids

The EI training program, as well as the management and inspector trainings, would consist of interactive slide-based lectures with supporting presentation materials. The program facilitator would use photographs, demonstrations, and interactive scenario exercises to enhance audience participation and promote learning. The following training materials would be used during the crew training sessions:

- *Training Brochure:* A handbook or brochure would be developed to highlight Project-wide and spread-specific environmental requirements and procedures.

- *Wallet Card/Vehicle Sticker:* A wallet card and/or vehicle sticker would be used to highlight basic environmental responsibilities.

- *Hard Hat Decal:* A hard hat decal with the EPNG Project logo would be given to individuals that complete the crew-training program. The decal would be used to identify trained individuals.

6.5 MITIGATION MONITORING CONDITIONS

6.5.1 Compliance Plans and Procedures

EPNG has prepared compliance plans that outline specific measures and practices to minimize the potential for environmental impacts on natural resources within and surrounding the Project area. These plans have been incorporated into Section 2, Project Description, and have been an integral component of the environmental impact analysis. EPNG's compliance plans are provided in Appendix D. They are described in the following subsections. These applicant-prepared plans have the same force as agency mitigation conditions.

Storm Water Pollution Prevention Plan

The SWPPP was prepared to comply with the provisions of the NPDES General Permit for Storm Water Discharges from Construction Activities (EPA – February 17, 1998). This plan presents the means for controlling the offsite discharge of pollutants associated with storm water discharges.

In general, BMPs to control erosion and sedimentation would be used during construction to minimize impacts resulting from construction activities. The objective of the SWPPP is to minimize the potential for erosion and sedimentation during pipeline conversion activities and to effectively restore the ROW and other disturbed areas. The erosion and sediment control measures described in the SWPPP are intended to prevent discharge of pollutants during construction activities. Because of the number of different work locations and variability in the terrain, it is not practical to develop site-specific plans and sediment controls for each area of the ROW. Instead, this plan presents typical structural and non-structural erosion and sediment control measures and management practices that would be implemented during construction activities. The erosion and sediment control measures described in this plan would serve as minimum standards during construction. In general, the measures are designed to minimize erosion and sedimentation by:

- minimizing the quantity and duration of soil exposure;
- protecting critical areas during construction by reducing the velocity of runoff and redirecting runoff away from disturbed areas of the ROW;

- installing and maintaining erosion and sediment control measures during construction;

- re-establishing vegetation as soon as possible following final grading; and

- inspecting the ROW and maintaining erosion and sediment controls as necessary until final stabilization and revegetation is achieved.

EIs would be responsible for ensuring that contractors implement and maintain erosion and sediment control measures during construction. The SWPPP and a copy of the Notice of Intent would be kept at all of the construction sites (if practical) or at the nearest contractor office or trailer. This plan would be available to a responsible agency representative upon request.

All personnel involved in the Project would attend an environmental training program that would include a discussion on general erosion and sediment control requirements, proper clearing and grading methods, and the importance of protecting sensitive resources on the Project. Crews specializing in erosion control tasks would be given additional training on proper installation and maintenance of erosion and sediment control measures.

Spill Prevention, Containment, and Countermeasure Plan

The Spill Prevention, Containment, and Countermeasure (SPCC) Plan would be implemented during construction of the Project in accordance with Section IV.A of the FERC Wetland and Water Body Construction and Mitigation Procedures, dated January 17, 2003. The SPCC Plan outlines specific preventive measures and practices to reduce the likelihood of an accidental release of a hazardous or regulated liquid and to expedite cleanup of any release that may occur during construction activities.

The SPCC Plan restricts the location of fuel storage, fueling activities, and construction equipment maintenance along the construction ROW and provides procedures for these activities. Training and lines of communication to facilitate the prevention, response, containment, and cleanup of spills during construction activities are also outlined. The goals of the SPCC Plan are to minimize the potential for a spill of these materials, to contain any spillage to the smallest area possible, and to protect areas that are considered environmentally sensitive (e.g., streams, groundwater wells, and wetlands).

All contractor and subcontractor personnel working on the Project ROW are responsible for implementation of the measures and procedures defined in the SPCC Plan. The plan would be included in both the bid and the contract documents as contractual requirements and instructions to the contractor.

Line 1903 Wetland and Waterbody Construction and Mitigation Procedures

The intent of the Procedures is to identify mitigation measures to minimize the extent and duration of Project-related disturbance on wetlands and waterbodies.

Upland Erosion Control, Revegetation, and Maintenance Plan

The intent of the UECRM Plan is to identify baseline mitigation measures for minimizing erosion and enhancing revegetation.

Contaminated Soils Plan

Oil-contaminated soils may be encountered during excavation activity. The Contaminated Soils Plan describes the required environmental testing and regulatory notifications. In some cases, remedial measures may also be required prior to backfill and compaction.

Noxious Weeds Protection Plan

Noxious weed control practices for the Project were developed from existing Noxious Weed Management Plans in other BLM ROW Plans of Development near the Project area. The purpose of the Noxious Weeds Protection Plan is to prescribe methods to prevent and control the spread of noxious weeds during and following construction on Federal and State land in the Project area.

Where noxious weeds were identified, the following preventative measures would be implemented on Federal and State lands to prevent the spread of noxious weeds along the construction ROW:

All construction equipment and Project vehicles would arrive at the work site clean and weed free.

Compressed air would be used to remove seeds, roots, and rhizomes from the equipment in known infestation areas prior to transport from the site. Alternately, truck wash stations may be used for this purpose, dependent on available water and the direction of the BLM.

In areas with known infestations within the work area, vegetation and topsoil would be graded and stockpiled on the side of the ROW adjacent to the area from which they were stripped to isolate soil that may contain noxious weed seeds. This action would reduce the potential for following construction equipment to transport seeds, roots, or rhizomes down the ROW.

Reclamation of disturbed areas would be implemented immediately following construction.

Fertilizer would not be applied to reclaimed areas with known weed infestations, because nutrients can enhance the growth of weeds.

Straw bales used for sediment barriers or mulch would be certified weed-free.

Post-construction monitoring and treatment of weed infestation on the ROW would be implemented as needed.

Protection Measures for Special-Status Species

EPNG has drafted measures to minimize possible adverse effects on federally and State-listed wildlife and plants that inhabit areas traversed by the Project ROW. The implementation of these measures would benefit the species identified as being of concern, as well as all wildlife and plants in the work areas. These measures would be implemented by EPNG unless superceded by specific written requirements or recommendations from the USFWS as a result of Section 7 formal consultation under the Endangered Species Act.

Federally listed and proposed species or their habitats known to occur along the Project ROW are referenced in Tables 4.2-1 and 4.2-3.

Fire Prevention and Suppression Plan

The Fire Prevention and Suppression Plan identifies measures to be taken by EPNG and its contractors to ensure that fire prevention and suppression techniques are carried out in accordance with Federal, State, and local regulations. Measures identified in this plan apply to work in the Project area defined as the ROW, access roads, all work and storage areas, and other areas used during construction of the Project. The Fire Prevention and Suppression Plan was developed in consideration of the BLM ROW Plans of Development and Grants, BLM Manual Handbook H-2901-1.

The risk of fire danger during pipeline construction is related to smoking, refueling activities, operating vehicles and other equipment off roadways, welding activities, and the use of explosive materials and flammable liquids. During pipeline operation, the risk of fire is primarily from unauthorized entry onto the ROW. During maintenance operations, the risk of fire is from vehicles and pipeline maintenance activities that require welding. The Fire Prevention and Suppression Plan establishes standards and practices that would minimize the risk of fire danger and, in case of fire, provide for immediate suppression.

The plan would be implemented by EPNG and the contractor. EPNG and the contractor have the responsibility for providing all necessary fire-fighting equipment on the Project site to their respective employees, and operating under the requirements of the Fire Prevention and Suppression Plan. Prior to construction, EPNG would contact the appropriate authorities to establish communications, obtain permits (if applicable), and fulfill other obligations as directed by fire control authorities. In addition to the above, EPNG would:

- ensure that prevention, detection, pre-suppression, and suppression activities are in accordance with the Fire Prevention and Suppression Plan and Federal, State, and county laws, ordinances, and regulations pertaining to fire;

- accompany agency representatives on fire tool and equipment inspections and take corrective action upon notification of any fire protection requirements that are not in compliance; and

- restrict operations on Federal lands during conditions of high fire danger as directed by the BLM as described in Section 4.1.11, Restricted Operations.

The fire prevention and suppression measures described in this plan would be in effect from the start of construction to the end of construction. These restrictions may change by advance written notice by fire control authorities. However, required tools and equipment would be kept in serviceable condition and be immediately available for fire suppression at all time.

Residential Construction Plan

No construction activity would occur within 100 feet of a residence. In the event of a field variance or other condition indicating a need for such work, a residential construction plan must be completed by EPNG and approved by the CSLC and BLM 60 days prior to construction.

Traffic Management Plan

EPNG must prepare traffic management plans for all road crossings. These plans must be approved by CSLC and BLM 60 days prior to construction.

6.5.2 Mitigation Measures from EIR/EA

The following sections present the mitigation monitoring tables for each environmental discipline. Each table lists the following information, by column:

- Impact
- Mitigation Measure
- Location (where the impact occurs and the mitigation measure should be applied)
- Monitoring/reporting action (the action to be taken by the monitor or Lead Agency)
- Effectiveness criteria (how the agency can know if the measure is effective)
- Responsible agency

- Timing (before, during, or after construction; during operation, etc.)

Table 6-2. Mitigation Monitoring Program – Biological Resources

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
BIO-1: Temporary Disturbance of Wetlands. Construction and maintenance activities in wetlands could result in loss of wetland values and functions.	**BIO-1: Restoration Plan.** Develop a Restoration Plan to meet resource agency requirements for each wetland affected by the Project sixty days prior to work. Unless otherwise stated by resource agencies, the plan would include removal and stockpiling of the top 8 inches of soil from a wetland area outside the wetland prior to commencing construction activities. The soil would be replaced immediately following construction and successful testing of the line. The pipeline ROW would be revegetated with native sedges and rushes in wetland areas. If unavailable, a weed-control program would be implemented for a 5-year period to facilitate natural regeneration.	MP 44.59 and MP 149.10	Monitoring and Performance Criteria stipulated in the Restoration Plan. Confirmation by Environmental Monitor	No discernable impact to wetland areas within 2 years of project completion resulting from EPNG activities.	CSLC BLM CDFG USFWS	Prior to issuance of Notice to Proceed. Prior to construction in each wetland.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
BIO-2: **Spread of Noxious Weeds.** Construction and maintenance activities could result in the spread of noxious weeds, to the detriment of native species.	**BIO-2: Weed Control.** Measures to prevent the spread of noxious weeds are described in EPNG's Noxious Weeds Protection Plan (Appendix D5), and EPNG's UERCM Plan. The following preventative measures would be implemented on federal and State lands to prevent the spread of noxious weeds along the ROW: • Equipment and vehicles would arrive clean and weed free. • Compressed air would be used to remove seeds, roots and rhizomes from equipment in known infestation areas prior to leaving the site. Truck wash stations could also be used depending on water availability. • Grade and stockpile soil in areas with known infestations. • Recovery of disturbed areas would be implemented immediately following construction. • Fertilizer would not be applied to reclaimed areas with known weed infestations. • Straw bales would be certified weed free.	Entire alignment and staging areas	Review construction maintenance logs. Post-construction monitoring. Treatment of weed infestation on the ROW. Confirmation by Environmental Monitor	No introduction of new weed species due to EPNG activities.	CSLC BLM	Clean equipment before and after moving it from noxious weed areas. Restore areas immediately following construction.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
BIO-3: San Emigdio Blue Butterfly. Maintenance activities could adversely affect host plants or larvae of the San Emigdio blue butterfly	**BIO-3a: Pre-Maintenance Surveys.** Conduct pre-maintenance surveys for saltbush host plants in areas where habitat for such species is present.	MP 0 – MP 27.5	Map and mark sensitive resources in the field, and on construction drawings or project maps.	Consistent with requirements stipulated by resource agencies. Confirmation by Environmental Monitor.	CSLC USFWS CDFG	Prior to maintenance.
	BIO-3b: Avoidance and Minimization Measures. Maintenance activities would avoid the removal or crushing of saltbush plants.	MP 0 – MP 27.5	Map and mark sensitive resources in the field, and on construction drawings or project maps.	No mortality of saltbush plants due to EPNG activities. Confirmation by Environmental Monitor.	CSLC USFWS CDFG	Before and during maintenance.
BIO-4: Blunt-Nosed Leopard Lizard. Construction and maintenance activities could result in mortality or loss of burrows for the blunt-nosed leopard lizard.	**BIO-4a:Pre-Construction and Pre-Maintenance Surveys**: EPNG would conduct pre-construction and pre-maintenance surveys for the blunt-nosed leopard lizard according to established protocols.	MP 14 – MP 22.48	Map and mark sensitive resources in the field, and on construction drawings or project maps.	No mortality or loss of habitat for the blunt-nosed leopard lizard due to EPNG activities. Successful relocation of special-status species from the ROW. Confirmation by Environmental Monitor.	USFWS CDFG	Prior to Issuance of Notice to Proceed. Prior to construction and maintenance activities.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-4b: Avoidance of Occupied Burrows. Avoid all burrows found during pre-construction, construction, and maintenance surveys that are likely to house blunt-nosed leopard lizards.	MP 14 – MP 22.48	Compliance Monitoring. Map and mark sensitive resources in the field, and on construction drawings or project maps.	No mortality or loss of habitat for the blunt-nosed leopard lizard due to EPNG activities. Successful relocation of special-status species from the ROW.	USFWS CDFG	During construction and maintenance.
	BIO-4c: Fencing. Following pre-construction and pre-maintenance surveys, EPNG would fence-off the ROW, or portions of the ROW to minimize the potential for special-status wildlife usage through the Project area. Protective measures are provided in Appendix D. Fencing would be removed when construction is completed.	Special-status wildlife use areas.	Compliance Monitoring. Map and mark sensitive resources in the field and on construction drawings or project maps.	No mortality or loss of habitat for the blunt-nosed leopard lizard due to EPNG activities.	CSLC BLM USFWS CDFG	Before, during and after construction.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-4d: Offsite Mitigation. Offsite habitat improvements or habitat acquisitions would be acquired at a ratio stipulated by the resource agencies for burrows that are damaged during construction activities. Generally, ratios are as follows: • 5:1 for new disturbance in critical habitat. • 3:1 where overlapping previously disturbed critical habitat. • 1:1 for all non-critical habitat.	Areas with critical habitat.	Maintain communication logs with agency personnel.	Consistent with requirements stipulated by resource agencies. Confirmation by Environmental Monitor.	BLM USFWS CDFG	Following construction and maintenance.
	BIO-4e:TES Species Education Program. All EPNG employees and its contractors would be required to take a threatened and endangered species (TES) education program.	Entire alignment.	Maintain training logs. Ensure all site personnel have had training.	EPNG employees and contractors are knowledgeable about species of concern and the proper protection measures to be implemented.	BLM USFWS CDFG	Prior to construction and maintenance.
	BIO-4f: Reports of Encounters with Listed Species. Encounters with a listed species would be reported to an authorized and qualified biologist. The information would include the location and dates of observation, general conditions and health, any apparent injuries and state of healing, and handling information (if any).	Entire alignment.	Maintain records of all listed species encountered during Project activities	Consistent with requirements stipulated by resource agencies. Confirmation by Environmental Monitor.	USFWS CDFG	During construction and maintenance

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-4g: Handling by a Qualified Biologist. Only authorized and qualified biologists may handle listed species. Biologists must have appropriate qualifications and approval by USFWS and CDFG 30 days prior to any ground disturbing activities.	Entire alignment.	Maintain list of qualified biologists. Monitor all handling activities.	Consistent with requirements stipulated by resource agencies. Confirmation by Environmental Monitor.	USFWS CDFG	Authorized 30 days prior to Project construction. Authority throughout Project completion.
	BIO-4h: Qualified Biologists Authority. The authorized biologists would have authority to immediately stop any activity that is not in compliance with the Biological Opinion or the Section 2081 permit. Qualified biologists have the authority to order any reasonable measures to avoid the take of a protected species.	Entire alignment.	Maintain list of BLM, USFWS, and CDFG personnel responsible for overseeing the Project. Monitor construction activities.	Consistent with requirements stipulated by resource agencies. Confirmation by Environmental Monitor.	BLM USFWS CDFG	Authorized 30 days prior to Project construction. Authority throughout Project completion.
	BIO-4i: Reports of Dead or Injured Animals. Report dead or injured listed species and transport injured animals to a qualified veterinarian for treatment. The report would include the date and time of the finding or incident (if known), location of the carcass, a photograph, cause of death (if known), and other pertinent information.	Entire alignment.	Initial notification to CDFG and USFWS within 3 working days of discovery. Maintain written notification records to USFWS and CDFG.	No EPNG related injuries or mortality to wildlife.	USFWS CDFG	During construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-4j: Existing Travel Routes. Use existing routes of travel to and from the maintenance and inspection sites. Cross-country use of vehicles and equipment would be strictly prohibited**.**	Entire alignment.	Compliance Monitoring.	No EPNG related injuries or mortality to wildlife.	CSLC BLM USFWS CDFG	During construction and maintenance
	BIO-4k: **Trash Control.** Trash and food items would be contained in closed containers and removed daily to reduce their attractiveness to opportunistic predators such as common ravens (Corvus corax), coyotes (Canis latrans), and feral dogs.	Entire alignment	Compliance Monitoring.	No EPNG related injuries or mortality to wildlife.	CSLC BLM USFWS CDFG	During construction and maintenance
	BIO-4l: Pet Restrictions. Employees would be prohibited from bringing pets to the Project site/area.	Entire alignment	Compliance Monitoring.	No EPNG related injuries or mortality to wildlife.	CSLC BLM USFWS CDFG	During construction and maintenance
	BIO-4m: Firearms Restrictions. Firearms would be prohibited from the Project site/area.	Entire alignment	Compliance Monitoring.	No EPNG related injuries or mortality to wildlife.	CSLC BLM USFWS CDFG	During construction and maintenance

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-4n: Removal of Equipment and Unused Materials. Upon completion of construction activities and each maintenance action on the ROW, all unused material and equipment would be removed from the site. This condition does not apply to fenced compressor station sites.	Entire alignment	Compliance Monitoring.	No EPNG related injuries or mortality to wildlife.	CSLC BLM USFWS CDFG	Following construction and maintenance
	BIO-4o: Hazardous Material Control. Any fuel or hazardous waste leaks or spills would be stopped/repaired immediately and cleaned up at the time of occurrence in accordance with EPNG's Spill Plan. The storage and handling of hazardous materials would be excluded from the construction zone in areas within 100 feet of active burrows and wash crossings.	Entire alignment.	Compliance Monitoring. Report spills in desert tortoise habitat to the appropriate BLM field office within 24 hours.	No EPNG related injuries or mortality to wildlife. Information is disseminated in an efficient and complete manner.	CSLC BLM USFWS CDFG	During construction and maintenance.
	BIO-4p: Re-contouring and Re-vegetation. Following construction, the ROW would be recontoured to match as closely as possible the original contours of the area. The provisions of the Upland Erosion Control, Revegetation and Maintenance Plan would be implemented.	Entire alignment.	Compliance Monitoring.	No EPNG related injuries or mortality to wildlife. No perceptible damage to the landscape in areas of construction following re-contouring and revegetation.	CSLC BLM USFWS CDFG	Following construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-4q: Annual List of Proposed Activities. In January of each year, beginning in 2004, EPNG would submit a list of proposed activities by name, category, location, and approximate start date to the BLM. EPNG would also forward the list of activities to the USFWS and CDFG. The agencies would have 30 days following receipt of the report to reject the proposed action. In the event of a rejection, EPNG would work with the agencies to resolve issues. Agency approval of the proposed list of projects is valid for 1 year after agency acceptance.	Entire alignment.	Compliance Monitoring. Submit list of proposed activities yearly.	No delay in Project construction.	BLM USFWS CDFG	January of each year
	BIO-4r: Avoidance Scheduling: EPNG would avoid evening and night work in the San Joaquin Valley to the extent possible. Within the San Joaquin Valley, maintenance actions during evening hours would be minimized and work would not occur at night unless it is an emergency**.**	San Joaquin Valley.	Compliance Monitoring	No EPNG related injuries or mortality to wildlife.	CSLC BLM USFWS CDFG	During construction and maintenance

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-4s: Emergency Actions. For emergency situations involving a pipeline leak or spill or any other immediate safety hazard, EPNG would notify the appropriate BLM field office within 24 hours. As a part of this emergency response, the BLM, USFWS, and CDFG may require specific measures to protect listed species. During cleanup and repair, the agencies may require measures to recover damaged habitats.	Entire alignment.	Compliance Monitoring. Report emergency situations to BLM field office within 24 hours of incident.	No EPNG related injuries or mortality to wildlife. Information is disseminated in an efficient and complete manner.	BLM USFWS CDFG	During construction.
BIO-5 Potential Impacts on the Desert Tortoise: Construction and maintenance activities could result in mortality or loss of burrows for the desert tortoise.	**BIO-5a:USFWS Protocols:** EPNG would implement the provisions of the Field Survey Protocol for Any Federal Action that may occur within the Range of the Desert Tortoise (USFWS 1992). If no desert tortoises or their signs are found within the protocol distance of the construction locations during species-specific surveys, no adverse impacts are expected.	MP 40 – MP 303.5; Cadiz Lateral	Compliance Monitoring. Map and mark sensitive resources in the field and on construction drawings or project maps.	No mortality or loss of habitat for the desert tortoise due to EPNG activities.	BLM USFWS CDFG	Prior to construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-5b: Equipment and Vehicle Checks: Desert tortoises commonly seek shade during the hot portions of the day. EPNG employees and their contractors working within the geographic range of this species would be required to check their equipment or vehicles before moving them. If desert tortoises are encountered, the vehicle would not be moved until such animals have voluntarily moved to a safe distance away from the parked vehicle. A person authorized by the USFWS for this task may move the desert tortoises if they have not moved within 15 minutes of first observation.	MP 40 – MP 303.5; Cadiz Lateral	Compliance Monitoring. Map and mark sensitive resources in the field and on construction drawings or project maps. Maintain list of BLM, USFWS, and CDFG personnel responsible for overseeing the Project.	No mortality or loss of desert tortoise due to EPNG activities.	BLM USFWS CDFG	During construction and maintenance activities.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-5c: Handling by a Qualified Biologist: Only authorized personnel would move a desert tortoise. When a desert tortoise is moved, the qualified biologist would be responsible for taking appropriate measures to ensure that the animal is not exposed to temperature extremes that could be harmful. The authorized personnel would follow the appropriate protocols outlined in Guidelines for Handling Desert Tortoises during Construction Projects (Desert Tortoise Council 1996) when handling desert tortoises or excavating their burrows.	MP 40 – MP 303.5; Cadiz Lateral	Monitoring and Performance Criteria stipulated in the "Guidelines for Handling Desert Tortoises during Construction Projects." Maintain a list of qualified biologists with M.O.U. with CDFG. Submit list of proposed authorized biologists to USFWS and BLM for review and approval 30 days prior to initiation of any desert tortoise clearance surveys.	No mortality or loss of habitat for the desert tortoise due to EPNG activities.	BLM USFWS CDFG	During construction and maintenance activities.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-5d: Preconstruction Sweeps. An authorized biologist approved by CDFG and USFWS would perform a pre-construction sweep in desert tortoise habitat and would remain on site during working hours until permanent fencing has been installed to prevent desert tortoises from entering the ROW and the wash areas. Biologists would also be present for the removal of the temporary fencing. All desert tortoise burrows and pallets that fall outside of, but within 50 feet of the ROW, would be flagged for avoidance. No stakes or flagging would be placed on the berm or in the mouth of a desert tortoise burrow. Desert tortoise burrows would not be marked in a manner that facilitates poaching.	MP 40 – MP 303.5; Cadiz Lateral	Monitoring and Performance Criteria stipulated in the "Guidelines for Handling Desert Tortoises during Construction Projects." Map and mark sensitive resources in the field and on construction drawings or project maps.	No mortality or loss of habitat for the desert tortoise due to EPNG activities.	BLM USFWS CDFG	Prior to and construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-5e: Avoidance Scheduling for Routine Road Maintenance. EPNG would conduct routine road surface maintenance activities during the inactive season of the desert tortoise (October 16 through March 1 and June 16 through August 1) in desert tortoise habitat. Localized repair of major damage may take place throughout the year.	MP 40 – MP 303.5; Cadiz Lateral	Compliance Monitoring. Area to be surveyed by a qualified biologist prior to the start of the maintenance activity.	No mortality or loss of habitat for the desert tortoise due to EPNG activities.	BLM USFWS CDFG	October 16 through March 1 and June 16 through August 1.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-5f: Trench Mitigation Measures: EPNG has the option of erecting desert tortoise fencing in lieu of inspection of open trenches in desert tortoise habitat. If a trench is short, EPNG construction or maintenance personnel may monitor the trench. During excavation of trenches or holes, earthen ramps would be provided to facilitate the escape of any wildlife species that may inadvertently become entrapped. The length of pipeline trench left open at any given time would not exceed the length of pipeline segment that would be worked on in one week. A final inspection of the open trench segment would also be made immediately before backfilling. All open pipe segments would be covered or raised when work activity is not occurring at a site. Trenches must meet the safety requirements of the Occupational Safety and Health Administration before personnel enter open trenches to remove wildlife.	MP 40 – MP 303.5; Cadiz Lateral	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants. Periodic inspections of trenches and holes.	No mortality or loss of habitat for the desert tortoise due to EPNG activities.	BLM USFWS CDFG	During construction.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-5g: Burrow Excavation for Protective Removal. If it becomes necessary to excavate a desert tortoise from its burrow to move it from harm's way, excavation would be done using hand tools, either by or under the direct supervision of an authorized biologist. All desert tortoises removed from burrows would be placed in an unoccupied burrow of approximately the same size as the one from which it was removed. If an existing burrow is unavailable, the authorized biologist would construct or direct the construction of a burrow of similar shape, size, depth, and orientation as the original burrow. The authorized biologists would be allowed some judgment and discretion to ensure that survival of the desert tortoise is likely.	MP 40 – MP 303.5; Cadiz Lateral	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants. To ensure their safety, desert tortoises moved during inactive periods would be monitored for at least two days after placement in the new burrows or until the end of the job.	No mortality or loss of habitat for the desert tortoise due to EPNG activities.	BLM USFWS CDFG	Excavation of desert tortoise burrows would occur no more than 7 days before the onset of maintenance or construction activities.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	If desert tortoises need to be moved at a time of day when ambient temperatures could harm them (less than 40 ^{o}F or greater than 90 ^{o}F), they would be held overnight in a clean cardboard box. These desert tortoises would be kept in the care of the authorized biologist under appropriate controlled temperatures and released the following day when temperatures are favorable. All cardboard boxes would be appropriately discarded after one use.					
	BIO-5h: Dust Control. Dust control watering of the ROW within desert tortoise habitat would be conducted in a manner that does not result in the ponding of water. If ponding occurs, affected areas would be checked on a regular basis for the presence of tortoises and other special-status species.	Entire alignment.	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for the desert tortoise due to EPNG activities.	BLM USFWS CDFG	During construction and maintenance.
	BIO-5i: Speed Limits. Except on county-maintained roads, vehicle speeds would not exceed 20 miles per hour through desert tortoise habitat.	Entire alignment.	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for the desert tortoise due to EPNG activities.	BLM USFWS CDFG	During construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-5j: Implement Mitigation Measure BIO-4j and Additional Treatment Measures. These measures would result in the recovery of any injured desert tortoises that are treatable.	MP 40 – MP 303.5; Cadiz Lateral	Initial notification to CDFG and USFWS within 2 calendar days of discovery. Maintain written notification records to USFWS and CDFG.	No mortality or loss of habitat for the desert tortoise due to EPNG activities.	BLM USFWS CDFG	Check for injured or dead animals before, during and after construction and maintenance activities.
	BIO-5k: Implement Mitigation Measures BIO-4c, 4e, 4h—4s. Implementation of these measures would further reduce the risk of construction and maintenance impacts on the desert tortoise.	MP 40 – MP 303.5; Cadiz Lateral	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for the desert tortoise due to EPNG activities.	BLM USFWS CDFG	Before, during and after construction and maintenance.
BIO-6: Potential Impacts on Other Special-Status Amphibian and Reptile Species: Construction and maintenance activities could result in mortality to other special-status amphibian and reptile species.	**BIO-6a:Fencing Work Areas:** During construction and major maintenance activities, EPNG would fence the work areas to exclude all species of wildlife present in the immediate vicinity of the Project.	Entire alignment.	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for the special-status amphibian and reptile species due to EPNG activities.	BLM USFWS CDFG	During construction and maintenance.
	BIO-6b: Monitoring Open Pits, Trenches, and Pipes: During construction and major maintenance activities, EPNG would monitor open pits, trenches, and pipes to protect all species of wildlife present.	Entire alignment.	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for the special-status amphibian and reptile species due to EPNG activities.	BLM USFWS CDFG	During construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-6c: Capture and Removal. A qualified biologist would capture and remove, or chase, any special-status amphibian or reptile species out of the path of construction. Species potentially present along the ROW include: silvery legless lizard, San Joaquin coachwhip, California horned lizard, and Mojave fringe-toed lizard.	Entire alignment.	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants. Sightings of these species on the ROW would be reported to the EI. Submit report to the CDFG detailing locations at which any of the species were found at the end of the Project.	No mortality or loss of habitat for the special-status amphibian and reptile species due to EPNG activities.	BLM USFWS CDFG	Inspect ROW immediately prior to onset of pipeline trenching or other surface disturbing activity. Continue monitoring throughout construction and maintenance.
	BIO-6d: Implement Mitigation Measures BIO-4e, and 4h-4s. Implementation of these measures would further reduce the risk of potential impacts on other special-status amphibian and reptile species.	Entire alignment.	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for the special-status amphibian and reptile species due to EPNG activities.	BLM USFWS CDFG	Before, during and after construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
BIO-7: Potential Impacts on the San Joaquin Kit Fox: Construction and maintenance activities could result in mortality or loss of dens for the San Joaquin kit fox.	**BIO-7a: Standardized Recommendations for the Protection of San Joaquin Kit Foxes.** EPNG would follow the USFWS' Standardized Recommendations for the Protection of San Joaquin Kit Foxes prior to or during ground disturbance (USFWS 1999).	MP 0 – MP 40	Monitoring and Performance Criteria stipulated in USFWS' standardized protocols. Pre-construction and pre-maintenance surveys following USFWS standardized protocols.	No mortality or loss of habitat for the San Joaquin Kit Fox due to EPNG activities.	BLM USFWS CDFG	Before and during construction and maintenance. Avoid habitat disturbance from January 1 through April 30.
	BIO-7b: Avoidance Measures: EPNG would avoid activities near known dens to the extent possible. If dens are found within the construction or maintenance locations, the activity location would be adjusted if possible to avoid direct effects. Buffer dimensions would be as stipulated in EPNG's Biological Assessment or in a Biological Opinion issued by the USFWS.	MP 0 – MP 40	Monitoring and Performance Criteria stipulated in USFWS' standardized protocols and the Biological Opinion. Map and mark sensitive resources in the field, and on construction drawings or project maps.	No mortality or loss of habitat for the San Joaquin Kit Fox due to EPNG activities.	BLM USFWS CDFG	During construction and maintenance.
	BIO-7c: Buffer Zones: EPNG would limit activities in buffer zones to vehicle operation and equipment operation on existing roads only.	MP 0 – MP 40	Monitor construction activities.	No mortality or loss of habitat for the San Joaquin Kit Fox due to EPNG activities.	BLM USFWS CDFG	During construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-7d: Agency Guidance: EPNG would follow agency guidance where dens cannot be avoided. If destruction of a San Joaquin kit fox den cannot be avoided, CDFG and USFWS would be contacted for guidance prior to ground disturbance. With concurrence from these agencies, the subject den may be carefully excavated either by an authorized biologist or under the direct supervision of an authorized biologist to ensure that no animals are trapped or injured. Any San Joaquin kit foxes in residence would be allowed to escape unimpeded. The unoccupied den would then be completely destroyed to discourage animals from returning to the site. Potential dens would be excavated using the same procedures. If a natal den cannot be avoided, it would be hand excavated by a biologist between August 1 and December 14.	MP 0 – 40	Monitoring and Performance Criteria stipulated in USFWS' standardized protocols and the Biological Opinion.	No mortality or loss of habitat for the San Joaquin Kit Fox due to EPNG activities.	BLM USFWS CDFG	Prior to and during construction and maintenance. Hand excavate dens between August 1 and December 14 if they cannot be avoided.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-7e: Implement Mitigation Measures BIO-4b and 4e—4t. Implementation of these measures would further reduce the risk of potential impacts on the San Joaquin kit fox.	Entire alignment.	Monitoring and Performance Criteria stipulated in USFWS' standardized protocols.	No mortality or loss of habitat for the San Joaquin Kit Fox due to EPNG activities.	BLM USFWS CDFG	Before, during and after construction and maintenance.
	BIO-7f: Implement Mitigation Measures BIO-6a and 6b. Implementation of fencing and monitoring would further reduce the risk of impacts to the San Joaquin kit fox.	Entire alignment.	Monitoring and Performance Criteria stipulated in USFWS' standardized protocols.	No mortality or loss of habitat for the San Joaquin Kit Fox due to EPNG activities.	BLM USFWS CDFG	During construction and maintenance.
BIO-8: Potential Impacts on the Tipton Kangaroo Rat. Construction and maintenance activities could result in mortality or loss of burrows for the Tipton kangaroo rat.	**BIO-8a: Pre-Construction and Pre-Maintenance Surveys.** EPNG would conduct pre-construction and pre-maintenance surveys for the Tipton kangaroo rat, including the use of fiber-optic viewing scopes to determine whether burrows are actually occupied; if necessary, animals would be moved.	MP 14 – MP 22.5	Pre-construction and pre-maintenance surveys. Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants. Map and mark sensitive resources in the field, and on construction drawings or project maps.	No mortality or loss of habitat for the Tipton Kangaroo Rat due to EPNG activities.	BLM USFWS CDFG	Prior to construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-8b: Avoidance Measures. To the extent possible, all burrows known or likely to be used by Tipton kangaroo rats would be avoided during construction and maintenance activities.	MP 14 – MP 22.5	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for the Tipton Kangaroo Rat due to EPNG activities.	BLM USFWS CDFG	Prior to and during construction and maintenance.
	BIO-8c: Capture and Removal. When burrows known to be used by Tipton kangaroo rats cannot be avoided, individuals of this species would be captured and moved to a safe location by a properly permitted biologist.	MP 14 – MP 22.5	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for the Tipton Kangaroo Rat due to EPNG activities. Successful relocation of the special-status species.	BLM USFWS CDFG	Prior to construction and maintenance.
	BIO-8d: Implement Mitigation Measures BIO-4d—4s. Implementation of these measures would reduce the risk of potential impacts on the Tipton kangaroo rat.	MP 14 – MP 22.5	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for the Tipton Kangaroo Rat due to EPNG activities.	BLM USFWS CDFG	Before, during and after construction and maintenance.
	BIO-8e:Implement Mitigation Measures BIO 6a and 6b. Implementation of fencing and monitoring would further reduce the risk of impacts on the Tipton kangaroo rat.	MP 14 – MP 22.5	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for the Tipton Kangaroo Rat due to EPNG activities.	BLM USFWS CDFG	During and after construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
BIO-9: Potential Impacts on the Mohave Ground Squirrel: Construction and maintenance activities could result in mortality or loss of burrows for the Mohave ground squirrel.	**BIO-9a: Pre-Construction and Pre-Maintenance Surveys.** EPNG would conduct pre-construction and pre-maintenance surveys (for major maintenance activities) in areas that are likely to be occupied by the Mohave ground squirrel.	MP 50 – MP 132	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants. Pre-construction and pre-maintenance surveys. Map and mark sensitive resources in the field, and on construction drawings or project maps.	No mortality or loss of habitat for the Mohave Ground Squirrel due to EPNG activities.	BLM USFWS CDFG	Prior to construction and maintenance.
	BIO-9b: Avoidance Measures. To the extent possible, EPNG would avoid known burrows of this species. If Mohave ground squirrel burrows cannot be avoided, any individuals present would be removed by an authorized biologist.	MP 50 – MP 132	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for the Mohave Ground Squirrel due to EPNG activities.	BLM USFWS CDFG	Prior to and during construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-9c: Implement Mitigation Measures BIO-4d-4s. Implementation of these measures would reduce the risk of potential impacts on the Mohave ground squirrel. Any compensatory mitigation for the Mohave ground squirrel would be accomplished as part of the desert tortoise mitigation since the two species occur in overlapping areas. Actual mitigation fees would be determined based on construction disturbance.	MP 50 – MP 132	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for the Mohave Ground Squirrel due to EPNG activities.	BLM USFWS CDFG	Before, during and after construction and maintenance.
	BIO-9d: Implement Mitigation Measures BIO-6a and 6b. Implementation of fencing and monitoring would further reduce the risk of impacts on the Mohave ground squirrel.	MP 50 – MP 132	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for the Mohave Ground Squirrel due to EPNG activities.	BLM USFWS CDFG	During and after construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
BIO-10: Potential Impacts on Other Special-Status Mammalian Species. Construction and maintenance activities could result in mortality or loss of burrows for other special-status mammalian species.	**BIO-10a: Pre-Construction and Pre-Maintenance Surveys:** EPNG would conduct pre-construction and pre-maintenance surveys (for major maintenance activities) in areas that are likely to be occupied by special-status bats, short-nosed kangaroo rat, Tehachapi pocket mouse, San Joaquin pocket mouse, or Southern or Tulare grasshopper mice.	MP 0 – 22.5 MP 14 MP 50 Entire alignment	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants. Pre-construction and pre-maintenance surveys. Map and mark sensitive resources in the field, and on construction drawings or project maps.	No mortality or loss of habitat for other special status mammals due to EPNG activities.	BLM USFWS CDFG	Prior to construction and maintenance.
	BIO-10b: Avoidance Measures: To the extent possible, EPNG would avoid known burrows of these species. If Mohave ground squirrel and other mammalian species burrows cannot be avoided, any individuals present would be removed by an authorized biologist.	Entire alignment.	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for other special status mammals due to EPNG activities.	BLM USFWS CDFG	Prior to and during construction and maintenance activities.
	BIO-10c: Implement Mitigation Measures BIO-4e—4s. Implementation of these measures would reduce the risk of potential impacts on other special-status mammalian species.	Entire alignment.	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for other special status mammals due to EPNG activities.	BLM USFWS CDFG	Before, during and after construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-10d: Implement Mitigation Measures BIO-6a and 6b. Implementation of fencing and monitoring would further reduce the risk of impacts on other special-status mammalian species.	Entire alignment.	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for other special status mammals due to EPNG activities.	BLM USFWS CDFG	During and after construction and maintenance.
BIO-11: Potential Impacts on Federally or State-Listed Birds of Riparian Habitats. Maintenance activities could result in reduced reproductive success for Yuma clapper rail, southwestern willow flycatcher, elf owl, Gila woodpecker, and western yellow-billed cuckoo.	**BIO-11: Avoidance Scheduling.** EPNG would schedule maintenance activities to be conducted between MP 301.5 and MP 303.25 from September 15 through April 14 (outside the breeding seasons for these species).	MP 301.5 – MP 303.25	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for Federally or State listed birds of riparian habitats due to EPNG activities.	BLM USFWS CDFG	Between September 15 through April 14.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
BIO-12: Potential Impacts on Special-Status Raptor Species and their Nesting Habitat. Construction and maintenance activities could result in mortality or nest loss for burrowing owls and in reduced reproductive success or loss of nesting habitat for other special-status raptor species.	**BIO-12a: Pre-Construction and Pre-Maintenance Surveys.** EPNG would conduct pre-construction and pre-maintenance surveys for raptor nests.	Entire alignment MP 292 – 303.4	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants. Pre-construction and pre-maintenance surveys. Map and mark sensitive resources in the field, and on construction drawings or project maps.	No mortality or loss of habitat for special-status raptor species due to EPNG activities.	BLM USFWS CDFG	Beginning of the nesting season or 30 days prior to construction and maintenance activities (whichever is closer to the construction period)
	BIO-12b: Avoidance Measures. EPNG would implement avoidance measures during the breeding season for raptors. No work would be completed within 1,200 feet of a nest without approval from CDFG and an authorized raptor biologist monitoring for nesting birds.	Entire alignment.	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for special-status raptor species due to EPNG activities.	BLM USFWS CDFG	Prior to and during construction and maintenance activities until the end of the breeding season.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-12c: Burrowing Owl Mitigation Measures. EPNG would implement mitigation measures from the California Burrowing Owl Consortium's Burrowing Owl Survey Protocol and Mitigation Guidelines.	Entire alignment.	Monitoring and Performance Criteria stipulated in the California Burrowing Owl Consortium's Burrowing Owl Survey Protocol and Mitigation Guidelines.	No mortality or loss of habitat for special-status raptor species due to EPNG activities. Successful relocation of special-status species from the ROW.	BLM USFWS CDFG	Prior to and during construction and maintenance. Relocation from September through January.
BIO-13. Potential Impacts on Habitat for Other Special-Status Bird Species: Construction and maintenance activities could result in reduced reproductive success or nest loss for certain other special-status bird species, including loggerhead shrike, Lewis's woodpecker, Costa's hummingbird, Bendire's thrasher, Crissal thrasher, LeConte's thrasher, and hepatic tanager.	**BIO-13a: Pre-Construction and Pre-Maintenance Surveys.** EPNG would conduct pre-construction and pre-maintenance surveys for nesting birds during breeding seasons for any special-status birds potentially present in the construction or maintenance sites.	Entire alignment.	Pre-construction and pre-maintenance surveys. Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for special-status bird species due to EPNG activities.	BLM USFWS CDFG	Beginning of the nesting season or 30 days prior to construction and maintenance activities (whichever is closer to the construction period)

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-13b: Avoidance Measures. If pre-construction or pre-maintenance surveys reveal the presence of a potentially active nest for one of the species identified in this impact, EPNG would implement avoidance measures by (1) postponing activities until the offspring have fledged, or (2) fencing off the nesting area to protect it from damage.	Entire alignment.	Map and mark sensitive resources in the field, and on construction drawings or project maps. Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of habitat for special-status bird species due to EPNG activities.	BLM USFWS CDFG	Prior to and during construction and maintenance.
	BIO-13c: Additional Measures. CDFG would be contacted if Bendire's thrasher is found within 1,000 feet of construction and/or maintenance activities.	Entire alignment.	Map and mark sensitive resources in the field, and on construction drawings or project maps. Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants. CDFG would determine appropriate mitigation for this species.	No mortality or loss of habitat for special-status bird species due to EPNG activities.	BLM USFWS CDFG	Prior to and during construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
BIO-14. Potential Impacts on Federally or State-Listed Plant Species. Maintenance activities could result in mortality to federally or State-listed plant species.	**BIO-14a: Pre-Maintenance Surveys.** EPNG would conduct pre-maintenance surveys for federally and State-listed plant species in areas where habitat for such species is present.	Entire alignment.	Pre-maintenance surveys. Map and mark sensitive resources in the field, and on construction drawings or project maps. Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of federally and/or State listed plant species due to EPNG activities.	BLM USFWS CDFG	Prior to maintenance activities.
	BIO-14b: Avoidance Measures or Other Agency-Recommended Mitigation Measures. To the extent possible, potential impacts from maintenance activities would be avoided by avoiding populations of these species or by conducting maintenance activities at times when annual species are not growing. If a population cannot be avoided, resource agencies would be consulted to determine suitable additional mitigation measures.	Entire alignment.	Map and mark sensitive resources in the field, and on construction drawings or project maps. Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of federally and/or State listed plant species due to EPNG activities.	BLM USFWS CDFG	Before and during construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	BIO-14c: Seed Collection. Ripe seeds may be collected from special-status plan species expected to be impacted for use in re-seeding. This measure would be implemented only for species designated by CDFG or USFWS.	Entire alignment.	Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants, as well as the Upland Erosion Control, Revegetation, and Maintenance Plan.	No mortality or loss of federally and/or State listed plant species due to EPNG activities.	BLM USFWS CDFG	Prior to impacted a special-status plant species. Before and during construction and maintenance.
	BIO-14d: Re-seeding with Special-Status Species. Following the completion of surface preparation, the reserve seeds would be spread over an approximate area that previously contained the species prior to disturbance. The seeds would be hand sown into the bottoms of imprint depressions and covered with not more than ½ inch of soil. If abundance of the targeted species is not equivalent to the pre-construction abundance, EPNG would provide monetary compensation to CDFG.	Entire alignment.	Document pre-construction conditions. Monitor revegetation efforts for six years. Compare revegetation to previously existing conditions to determine whether monetary compensation is required.	Revegetated areas equal the abundance and distribution of pre-construction areas.	BLM USFWS CDFG	Following the completion of construction activities.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
BIO-15: Potential Impacts on Other Special-Status Plant Species. Maintenance activities could result in mortality to other special-status plant species.	**BIO-15: Implement Mitigation Measures BIO-14a and 14d.** To the extent possible, potential impacts from maintenance activities would be avoided by avoiding populations of these species or by conducting maintenance activities at times when annual species are not growing.	Entire alignment.	Pre-construction and pre-maintenance surveys. Map and mark sensitive resources in the field, and on construction drawings or project maps. Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of other special-status plant species due to EPNG activities.	BLM USFWS CDFG	Before, during and after construction and maintenance. Work activities to be completed outside of growing seasons.
BIO-16: Potential Impacts on Desert Succulent Species. Construction activities could result in mortality to desert succulent species, which are protected under various county ordinances and BLM policies.	**BIO-16: Salvage Desert Succulent Species.** All cactus, yucca, and agave species within disturbance areas would be avoided, transplanted, adjacent to the disturbance area, and/or re-transplanted back into the disturbance area after surface disturbing activities are complete.	Entire alignment.	Pre-construction and pre-maintenance surveys. Map and mark sensitive resources in the field, and on construction drawings or project maps. Monitoring and Performance Criteria stipulated in Appendix D: Protection Measures for Special Status Wildlife and Plants.	No mortality or loss of desert succulent species due to EPNG activities. Successful transplant of species removed from the ROW or work areas.	BLM	Remove potentially threatened succulents before construction. Monitor for potentially threatened succulents during construction. Re-transplant succulents following construction.

Table 6-3. Mitigation Monitoring Program – Agricultural Resources

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
AGR-1: Temporary Loss of Rangelands or Income. Construction of the Project could impact rangelands through the loss of the carrying capacity, damaging or removing fences or their natural barriers used for livestock control, and trapping or harming livestock that enter into the construction work area.	**AGR-1a: Land Restoration.** EPNG would regrade and restore lands back to their previous condition.	Areas where the pipeline passes through rangelands.	Monitor construction activities.	Existing land uses remain operable and profitable.	CSLC	During and following construction.
	AGR-1b: Livestock Control. Each fence crossed would be braced and secured before cutting the opening needed for construction to prevent slacking of the wire. The created opening would be closed by temporary gates as necessary to prevent passage of livestock. All damaged livestock fences, gates, cattleguards, and brace panels would be repaired or replaced to landowner standards.	Areas where the pipeline passes through rangelands.	Monitor construction activities. Maintain logs of communication with landowners.	Livestock are kept outside of the work areas.	CSLC	Before and during construction.
	AGR-1c: Livestock Safety. Temporary fencing would be installed as required to prevent livestock entry into the construction work area.	Areas where the pipeline passes through rangelands.	Monitor construction activities.	No livestock are injured or harmed by construction activities.	CSLC	Before and during construction.
	AGR-1d: Compensation to Landowners. EPNG's ROW agents would coordinate construction activities with property owners and tenant farmers to minimize impacts on farming operations. Prior	Areas where the pipeline crosses rangelands.	Maintain logs of communication with landowners.	Landowners are fairly compensated for their loss.	CSLC	Prior to construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	to the start of construction, EPNG would enter into an agreement with each landowner and/or farmer, as appropriate, to provide fair compensation for the loss of income from cultivation of land taken out of production due to pipeline construction.					
AGR-2: Temporary Loss of Agricultural Land or Income. Construction impacts to agricultural land could result in loss of topsoil and/or farming income.	**AGR-2: Topsoil Preservation.** EPNG would set aside at least 8-inches of topsoil removed during pipeline construction on agricultural lands and preserve it for replacement and restoration to its prior location after construction for continued agricultural use.	Areas where the pipeline crosses agricultural lands.	Monitor construction activities.	Existing land uses remain operable and profitable.	CSLC	During construction.
AGR-3: Interruption of Irrigation. Construction activities could damage or interrupt irrigation thereby reducing the crop yield.	**AGR-3a: Maintain Flow.** EPNG would maintain the flow of irrigation systems or coordinate the temporary shutoff of systems with affected landowners or tenants.	Areas where the pipeline crosses agricultural lands.	Monitor construction activities. Maintain logs of communication with landowners.	Existing land uses remain operable and profitable.	CSLC	During construction.
	AGR-3b: Repair Damage to Systems. Disturbed drainage furrows, water piping, or heads would be restored, repaired, or replaced as soon as possible and monitored for problems after	Areas where the pipeline crosses agricultural lands.	Monitor construction activities. Post-construction monitoring of irrigation systems that have been repaired by the Project.	Existing land uses remain operable and profitable.	CSLC	During and following construction.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	construction is completed. EPNG would provide compensation where crop yields show a decline.		Maintain logs of communication with landowners. Assess crop productivity for a period of at least 2 years.			
	AGR-3c: Limit Construction Time. EPNG would complete construction and restoration within a 7-day (maximum) period where pivot irrigation is active.	Areas where the pipeline crosses agricultural lands.	Monitor construction activities and time schedule in areas with pivot irrigation.	Existing land uses remain operable and profitable.	CSLC	During construction.
AGR-4 Permanent Loss of Agricultural Land or Income: Construction activities would disturb cultivated cropland	**AG-4. Compensation to Landowners:** EPNG's ROW agents would coordinate construction activities with property owners and tenant farmers to minimize impacts on farming operations. Prior to the start of construction, EPNG would enter into an agreement with each landowner and/or farmer, as appropriate, to provide fair compensation for the loss of income from cultivation of land taken out of production due to pipeline construction.	MP 2.10 MP 22.48 MP 22.48 MP 296.23 MP 298.81 MP 302.68 MP 303.4	Maintain logs of communication with landowners.	Landowners are fairly compensated for their loss.	CSLC	Prior to construction and maintenance.

Table 6-4. Mitigation Monitoring Program – Geology and Soils

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
GEO-1: Seismic-Induced Damage. Seismic motion could damage the pipeline	**GEO-1a: Checking for Pipe Damage.** EPNG must have a Post Earthquake Inspection and Monitoring Plan approved by the CSLC 60 days prior to the start of operations. The plan must specify procedures to assess the integrity of the pipeline and its ability to meet the seismic design criteria used in fault crossings and other seismic hazards. The plan must include the following pipeline operations and maintenance procedures. Following an earthquake within the parameters shown in the table below, EPNG operations personnel would inspect all parts of the pipeline alignment that fall within the specified distance of the earthquake epicenter for evidence of permanent ground deformation (e.g., cracks or displacements). If surface fault rupture is reported or observed, the pipeline alignment within at least 1,000 feet of the	Garlock and Calico Faults.	Monitoring and Performance Criteria stipulated in the Post Earthquake Inspection and Monitoring Plan as well as the Operation and Maintenance Plan.	Minimize personal injury, death or property damage from fire or explosion hazards.	CSLC	60 days prior to operation of Project.

	rupture would be inspected. EPNG would submit reports of its findings to the BLM and the CSLC. Once approved, this plan must be included in EPNG's Operation and Maintenance program.					
	GEO-1b: Geohazard Assessment along Cadiz Lateral. EPNG must have a pipeline design approved by CSLC for the Cadiz Lateral 60 days prior to construction. A geohazard assessment and soil sampling equivalent to that conducted for Line 1903 must support the design.	Cadiz Lateral	Review geohazard assessment and soil sampling information. Monitoring and Performance Criteria stipulated in the Post Earthquake Inspection and Monitoring Plan as well as the Operation and Maintenance Plan.	Minimize personal injury, death or property damage from fire or explosion hazards.	CSLC	60 days prior to construction activities.
GEO-2: Exposure of Paleontological Resources. Construction activities could expose paleontological resources.	**GEO-2: Avoidance or Scientific Excavation.** Fossil materials would be scientifically excavated f avoidance of the resource is not feasible. EPNG would prepare a Paleontological Resources Management Plan for review and approval by the CSLC and BLM no later than 60 days prior to construction. The plan must have the following elements:	Palo Verde Mesa/Blythe; Danby Lake/Ward Valley/ Saltmarch; Archer/Cadiz Valley; Ludlow/ Argos; Hector; Daggett to Calico Fault; Hawes/ Halendale	Map and mark sensitive resources. Preconstruction surveys and construction monitoring. Notify appropriate State and Federal agencies.	Preservation of vertebrate or invertebrate fossils that are considered important by paleontologists and land management agency staff. Lessen the potential for disturbance of known and undiscovered paleontological resources.	CSLC BLM	Develop plan 60 days prior to construction activities. Monitor during and following construction activities.

	• Preconstruction, surveys of areas identified with high potential for paleontological resources. Those areas listed in Table 4.4-3 and the Cadiz lateral ROW must be included. • Worker Education Program regarding procedures to minimize impacts on paleontological resources. • Monitor areas that have been identified as containing scientifically significant fossils on Federal lands, and areas off Federal lands with a high potential for scientifically significant fossils during construction. A BLM and CSLC approved monitor would be present during ground-disturbing activities in these areas. • Check the disturbed area(s) prior to completion of the site activity. The monitor would have the authority to temporarily divert construction activity if	Fault; and Rogers Lake.				

	significant fossils are found. The approved paleontologist would also be notified if a fossil is found in a non-monitored area.					

Table 6-5. Mitigation Monitoring Program – Hydrology and Water Quality

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
WQ-1: Potential Impacts on Private or Public Water Supplies. Construction activities could affect quality or yield of private or public water supplies.	**WQ-1: Protection of Private and Public Water Supplies.** Prior to construction, EPNG would contact landowners to identify the location of all private wells within 200 feet of approved construction workspaces. Special precautions would be taken in areas of potential groundwater impact: • Prohibit refueling operations and storing of hazardous liquids within a 200-foot radius of private wells or within a 400-foot radius of public wells. • Communicate with the nearby well owners to determine changes in yield and discoloration during construction. • Implement SPCC plan. • Follow the Contaminated Soils Plan.	All construction and maintenance areas. Known well at MP 35.05.	Monitoring and Performance Criteria stipulated in the SPCC and Contaminated Soils Plan. Conduct biological monitoring at isolated springs to determine any adverse impacts on riparian communities in the ROW. Monitor construction activities for compliance. Post-construction well monitoring as requested by the well owner. Confirmation by Environmental Monitor	Flow of groundwater to local springs or wetland areas remains unaltered. Groundwater supplies for private or municipal purposes are not degraded or interrupted.	CSLC RWQCB	Contact landowners prior to construction and maintenance. Take special precautions to avoid groundwater impacts during construction. Post-construction monitoring.

	In the event that any well is damaged by construction activities, EPNG would provide a temporary source of water and would restore the well to its original capacity.					

Table 6-6. Mitigation Monitoring Program – Hazards and Public Safety

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
HAZ-1: Potential for Gas Line Rupture and Release of Natural Gas: Line 1903 could rupture and release natural gas, potentially causing a fire or explosion.	**HAZ-1a: Installation of Shutdown Valves.** EPNG would install automatically actuated shutdown valves upstream and downstream of Class 3 areas. These new or moved valve locations (Table 4.6-1) enhance public safety. Monitor yearly for population density changes and alter pipe design as necessary.	MP 43-44	Observe construction activities to verify compliance.	Reduces damage to existing facilities. Minimizes personal injury, death, or property damage from fire.	CSLC	Prior to operation of Project. Annually. Within 120 days of completion.
	HAZ-1b: Revised Operation and Maintenance Plan. EPNG would obtain approval from the CSLC for a revised Operation and Maintenance Plan 60 days prior to placing Line 1903 into service. The revised plan would address: • internal and external maintenance inspections of the completed facility, • details of integrity testing methods to be applied, • corrosion monitoring and testing of the cathodic protection	Entire alignment.	Review document for compliance.	Reduces damage to existing facilities. Minimizes personal injury, death, or property damage from fire.	CSLC USDOT	60 days prior to operation of Project. Update plan within 3 months of any new Federal or state regulations.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	system, • leak monitoring, • receiving, identifying, and classifying emergency events, gas leaks, fires, explosions, and natural disasters, • establishing and maintaining communications with local fire, police, and public officials, • making materials available at the scene of an emergency, • protecting people and then property, • implementing emergency shutdown of the system and safely restoring service.					
	HAZ-1c: Measures to Reduce Third Party Damage. EPNG would obtain approval from CSLC for enhanced protection from third-party damage 60 days prior to placing the portion of Line 1903 that lies within Class 2 or higher areas into service. EPNG must consider the	MP 24-27 MP 32-37 MP 42-44 MP 74-75 MP 118-123	Observe construction activities to verify compliance. Test EPNG's 24-hour toll-free emergency telephone number.	Minimizes personal injury, death, or property damage.	CSLC USDOT	60 days prior to placing Line 1903 into service. Installation of additional protective measures during construction.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	installation of concrete mats above the pipeline to reduce the potential for pipeline damage, or other measures that provide similar levels of protection.					

Table 6-7. Mitigation Monitoring Program – Air Quality

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
AIR-1 Construction Emissions: Construction emissions could temporarily exceed significance thresholds established by the MDAQMD.	**AIR-1a. Maintenance of Construction Equipment:** EPNG would maintain construction equipment in accordance with manufacturer's recommendations to prevent unnecessary emissions of NO_x, CO, VOC, and SO_2.	Entire alignment	Review construction vehicle documentation.	Exhaust emissions are minimized and within air quality standards.	MDAQMD CSLC	**AIR-1a.** During construction activities.
	AIR-1b. Fuel Use: EPNG would use lower sulfur #2 diesel fuel in heavy-duty construction equipment, with a sulfur content of 0.5% to minimize SO_2 emissions. EPNG would burn 87-octane gasoline in other construction equipment, such as light-duty trucks.	Entire alignment	Review MSDS sheets on fuel for construction equipment.	Exhaust emissions are minimized and within air quality standards.	MDAQMD CSLC	During construction activities.
	AIR-1c. Dust Control Plan: 30 days prior to construction**,** EPNG would obtain CSLC approval of a Dust Control Plan, and would comply with local ordinances regarding open burning if it is required for clearing the ROW.	Entire alignment	Compliance Monitoring.	Dust emissions are minimized.	MDAQMD CSLC	Generate plan 30 days prior to start of construction activities. Implement dust controls during construction.

Table 6-8. Mitigation Monitoring Program – Traffic and Transportation

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
TR-1: Disruption of Traffic Flow at Road Crossings Needing Replacement. Traffic flow would be disrupted at six road crossings where trenching of roadways is proposed**.**	**TR-1: Traffic Control Plans.** EPNG would submit a traffic control plan for each of the road crossings where trenching is proposed 60 days prior to construction. Plans would be submitted to each jurisdiction where the disruption may occur. The plans would be required to follow the standards and techniques prescribed in the Caltrans' Traffic Manual, Section 5, "Manual of Traffic Controls for Construction and Maintenance Work Zones"; the "Standard Specification for Public Works Construction," and the Manual on Uniform Traffic Control Devices (MUTCD), Part VI, "Traffic Controls for Street and Highway Construction, Maintenance, Utility and Emergency Operations."	MP 3.50 MP 5.25 MP 122.75 MP 160.00 MP 301.00 Cadiz Lateral	Traffic Control Plans for each road crossing that would directly or indirectly disturb the local traffic flow.	Effective detour routing, and flagging to abate congested traffic.	CSLC Counties	60 days prior to construction or maintenance.

Table 6-9. Mitigation Monitoring Program – Noise

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
NOI-1: Construction Noise. Noise could disturb residences within 500 feet of construction activities along the ROW.	**NOI-1: Limit Hours of Operation.** Limit construction to weekdays and daylight hours except when compromising the safety or integrity of the project.	MP 2-4 MP 11-12 MP 16-17 MP 23-37 MP 38-39 MP 41-45 MP 54-55 MP 72-76 MP 91-92 MP 105-106 MP 113-125 MP 128-130 MP 136-138 MP 139-140 MP 141-143 MP 199-200 MP 215-216 MP 292-294 MP 295-298 MP 300-301	Compliance Monitoring.	Maintain noise levels below general plan and noise ordinance standards. Reduce exposure of persons to ground-borne vibration and/or noise.	CSLC	During construction and maintenance.

Table 6-10. Mitigation Monitoring Program – Cultural Resources

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
CU-1: Unanticipated Discovery of Cultural Resources or Human Remains. Cultural resources, including human remains that were not identified during the surveys, could be discovered during construction.	**CU-1a: Stop Work.** If previously undiscovered cultural resources, such as lithic debitage or groundstone, shell midden, historic debris, building foundations, or human bone, are found within the APE during construction, all ground-disturbing activities within the immediate area would be halted at the site and within 100 feet of the site. A professional archaeologist would evaluate the find and notify appropriate state and Federal agencies. If the resource is eligible for listing in the NRHP or protected, the impacts would be mitigated through the Unanticipated Discovery Plan.	All construction and maintenance areas.	Map and mark sensitive resources. Notify appropriate State and Federal agencies.	Protection of historic and culturally significant resources. Lessen the potential for disturbance of known and undiscovered cultural resources.	CSLC BLM SHPO	During construction and maintenance.
	CU-1b. Unanticipated Discovery Plan: EPNG would submit an Unanticipated Discovery Plan to the CSLC 60 days prior to ground disturbance, for review	All construction and maintenance areas.	Map and mark sensitive resources.	Protection of historic and culturally significant resources. Lessen the potential for disturbance of known and	CSLC BLM SHPO	60 days prior to construction and maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	and comment. The plan would outline the processes of notification, evaluation, and mitigation should unanticipated cultural resources be found during construction.			undiscovered cultural resources.		
CU-2 Potential for Indirect Impacts on Cultural Resources during Construction: Construction and maintenance activities could result in indirect impacts on cultural resources.	**CU-2: Training:** EPNG would provide training to construction personnel. The training would include onsite avoidance requirements and the procedures for reporting any sensitive resources that may be discovered during construction. The training program would explain the potential for exposing cultural resources, including prehistoric and historic resources, during construction; the locations of potentially sensitive areas; and protocols to treat unexpected discoveries.	Entire Alignment.	Maintain training logs. Compliance Monitoring.	Protection of historic and culturally significant resources. Lessen the potential for disturbance of known and undiscovered cultural resources.	CSLC	Before and during construction or maintenance.
CU-3: Impacts on Recorded Archaeological Sites Adjacent to the Project APE. Construction activities could inadvertently	**CU-3a: Native American Consultation:** Appropriate consultation procedures as outlined in 36 CFR Part 800 would be completed	Entire Alignment.	Maintain consultation letters. Follow monitoring and excavation program provided by the San	Protection of historic and culturally significant resources.	CSLC BLM SHPO Native Americans	Prior to construction or maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
damage intact portions of cultural resources adjacent to the APE.	prior to construction.		Manuel Band of Mission Indians. Inform the San Manuel Band of Mission Indians, the Torres Martinez Desert Cahuilla Indians, the Chemehuevi Indians, and the Fort Mojave Indian Tribes of sites discovered.			
	CU-3b. Validation Survey. Although portions of the 17 sites are damaged within the APE, monitoring is recommended to ensure that other portions of the site that are adjacent to the APE are not inadvertently damaged. If CA-SBR-6404H, CA-SBR-6530H, and P-33-011304 are found eligible for listing on the NRHP and they cannot be avoided, FERC- and SHPO-approved data recovery and/or historic documentation is recommended. Archaeological testing and/or historical	Entire Alignment.	Historical documentation. Compliance Monitoring.	Protection of historic and culturally significant resources.	CSLC BLM SHPO	Before and during construction or maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	documentation is recommended for site CA-SBR-317H if avoidance is not possible.					
	CU-3c: Avoidance. EPNG would revise the alignment to the extent feasible to avoid all archaeological sites by at least 50 feet without exacerbating other environmental impacts. Archaeological sites within 100 feet of the alignment would be barrier fenced or otherwise protected to prevent accidental disturbance during construction. Mitigate unavoidable NRHP-eligible or potentially eligible cultural resource sites by FERC- and SHPO-approved data recovery efforts. Components of data recovery may include: • surface collection, • partial or complete excavation, • artifact and feature analysis, • mapping, architectural documentation, • archival research, or a	Entire Alignment.	Map and mark sensitive resources. Barrier fence archeological sites within 100 feet of the ROW. Notify appropriate State and Federal agencies. Compliance Monitoring.	Protection of historic and culturally significant resources.	CSLC BLM SHPO	Before and during construction or maintenance.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	combination of any of the above. .					
	CU-3d: Monitoring Program. EPNG would implement a comprehensive monitoring program to ensure protection of archaeological sites within and adjacent to the APE. EPNG would monitor construction activities within 200 feet of the 17 sites with intact cultural resources adjacent to the APE. The archaeological monitoring program would include the following tasks: • pre-construction assessment and construction training; • construction monitoring; • site recording and evaluation; • mitigation planning; • curation;	Entire Alignment.	Monitor construction activities within 200 feet of the APE. Pre-construction assessments construction training, and construction monitoring. Report of findings.	Protection of historic and culturally significant resources.	CSLC BLM SHPO	**CU-3d.** Prior to and during construction or maintenance activities.

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
	• report of findings; and • review and approve any erosion control and revegetation procedures in the vicinity of a known significant site prior to implementation of these procedures.					

Table 6-12. Mitigation Monitoring Program – Land Use and Planning

Impact	Mitigation Measures	Location	Monitoring/Reporting Action	Effectiveness Criteria	Responsible Agency	Timing of Mitigation
LU-1: Temporary Disturbance to Residences. Residential properties may be directly affected by trenching, landscape removal and restricted access during construction activities.	**LU-1a: Restore Property.** EPNG would immediately repair or replace any damaged property immediately following construction activities, such as landscaping, driveways, and fences.	MP 24.7 MP 29.5 MP 32.36 MP40.2 MP 43.1	Document damage incurred during construction and/or maintenance activities and the subsequent repairs.	No residential complaints registered against EPNG.	CSLC	Following construction and maintenance.
	LU-1b: Secure Trench Area. EPNG would install safety fencing around construction areas within 500 feet of residences and would backfill or cover open trenches at the end of each workday.	MP 24.7 MP 29.5 MP 32.36 MP40.2 MP 43.1	Monitor construction activities and ensure that trenches are safely enclosed or covered at the end of each day.	No accidents or injuries involving the general public during construction or maintenance activities.	CSLC	During and following construction.
	LU-1c: Maintain Access. EPNG would work with individual residents to maintain access to properties.	MP 24.7 MP 29.5 MP 32.36 MP40.2 MP 43.1	Maintain logs of communication with landowner.	No residential complaints registered against EPNG.	CSLC	Before, during and after construction and maintenance.
LU-2: Permanent Conversion of Residential Lands. Construction would permanently convert a half-acre of residential land to industrial.	**LU-2: Compensate Landowners.** EPNG would negotiate with the landowner at MP 33.36 to determine fair compensation for the land.	MP 33.36	Maintain logs of communication with landowner.	Landowner is fairly compensated for their loss.	CSLC	Prior to start of Project.
LU-3: Future Residential	**LU-3: Site-Specific**	Residences	Compliance	No residential	CSLC	Before

Impacts. Smart pigging, hydrostatic testing, repair, and maintenance work are ongoing Project related activities that may disturb residences that are developed within 50-feet of Line 1903 in the future.	**Mitigation Plans.** EPNG would prepare site-specific residential construction mitigation plans for all residences within 50 feet of construction activities. The site-specific plans must describe how construction impacts would be minimized in residential areas, including: • How and when landowners would be notified of construction activities. • How access and traffic flow would be maintained during construction activities, particularly for emergency vehicles. • How the hazard of open ditches would be minimized when construction activities are not in progress. • How fugitive dust from construction activities would be minimized. EPNG must also adopt the following mitigation (or discuss why they cannot adopt it): • Mature trees and landscaping should not be removed from within the edge of the	within 50-feet of the ROW or construction areas.	Monitoring. Maintain logs of communication with landowner.	complaints registered against EPNG. No accidents or injuries involving the general public during construction or maintenance activities.		implementing construction or maintenance activities.

	construction work area. • All lawn areas and landscaping within the construction work area should be restored immediately after backfilling the trench. • The edge of construction adjacent to the residences should be fenced for a distance of 100-feet on either side. • Fencing should be maintained throughout the open trench phase of pipe installation. • The construction work area should be reduced as necessary to maintain a minimum of 25 feet from the residence(s).					